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Urban Decision Making for Transportation Investments:
Portland's Light Rail Transit System

March 1985

A TECHNOLOGY SHARING REPRINT

Prepared by:

TRI-MET
Tri-County Metropolitan
Transportation District of Oregon

Portland State University

NOTE:
This report contains a detailed and candid account of the planning and installation of the light rail system in Portland, Oregon. Part of its content includes descriptions of Federal programs as seen by local officials, and documentation of the perceptions they held of the programs and their administration. Recognizing the local origins of the report, this material may not totally reflect the Federal perceptions or understandings of the same events. The report is published in the interest of information exchange on transportation topics, and to promote constructive dialog on the issues discussed, However, no endorsement of the perceptions noted is either expressed or implied by the U.S. Department of Transportation, or the U.S. Government.

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Portland's Light Rail Transit Line

Final Report
March 1985

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Prepared with funding from
Office of Planning Assistance
Urban Mass Transportation Administration
U.S. Department of Transportation
Washington, D.C. 20590

Distributed by
Technology Sharing Program
Office of the Secretary of Transportation

DOT-I-85-3

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The traditional champagne christening ceremony for Tri-Met's first Light Rail vehicle, Ruby Junction maintenance facility, April 1984. Photo by Don Zavin, courtesy Fred Glick Associates.

Acknowledgments

This project started out as a research effort in support of work being done by the San Diego Association of Governments (SANDAG). Under contract to SANDAG we prepared some initial material on the Portland decision-making process for the purpose of comparing it with the San Diego Trolley experience. George Franck of SANDAG was a patient and supportive project monitor who encouraged us to complete the effort by writing this report. At the time the complete contract was signed, G. B. Arrington was on "loan" from Tri-Met to the Metropolitan Service District (METRO). Tri-Met, METRO and Portland State University have each provided substantial support for this effort without attempting to direct the outcome. We particularly appreciate the graphic and layout assistance received from Norman Gollub, Libby Rehm and Jeff Frane of Tri-Met. We would also like to thank Don Zavin for the cover photograph and Fred Glick Associates for providing it.

The people who made this report substantively possible were those who graciously granted us time for interviews. Without exception, each one of our 25 respondents was candid and eager to talk with us about the process which produced the LRT. We sincerely appreciate the generous gift of time and knowledge and acknowledge our responsibility for any errors that may have occurred in committing the information to paper.

The project took two years to complete through several drafts and much data gathering. A number of people contributed to this effort. Rishi Rao, Cathy Clark, Mary Buzak and Larry Conrad contributed to the data gathering and processing. Denise Penner, Sandra Philbrook and Peg Cross transformed ragged copy into finished draft. Peg Cross in particular deserves acknowledgment. She may never be able to ride LRT without having word processing nightmares. In a "high tech" world we take for granted the ability of computers to talk with each other. For the initiated, this can be a deadly assumption. Hence, we thank Randy Perrin for his ability to "talk with the animals" and to make them talk with one another. Denise Penner hopefully will be able to return the Center for Urban Studies at Portland State to normalcy now that the intermittent need to drop everything and work on this report has passed. Dr. Ken Dueker, Director of the Center, provided moral support, constructive criticism and a positive environment in which to work.

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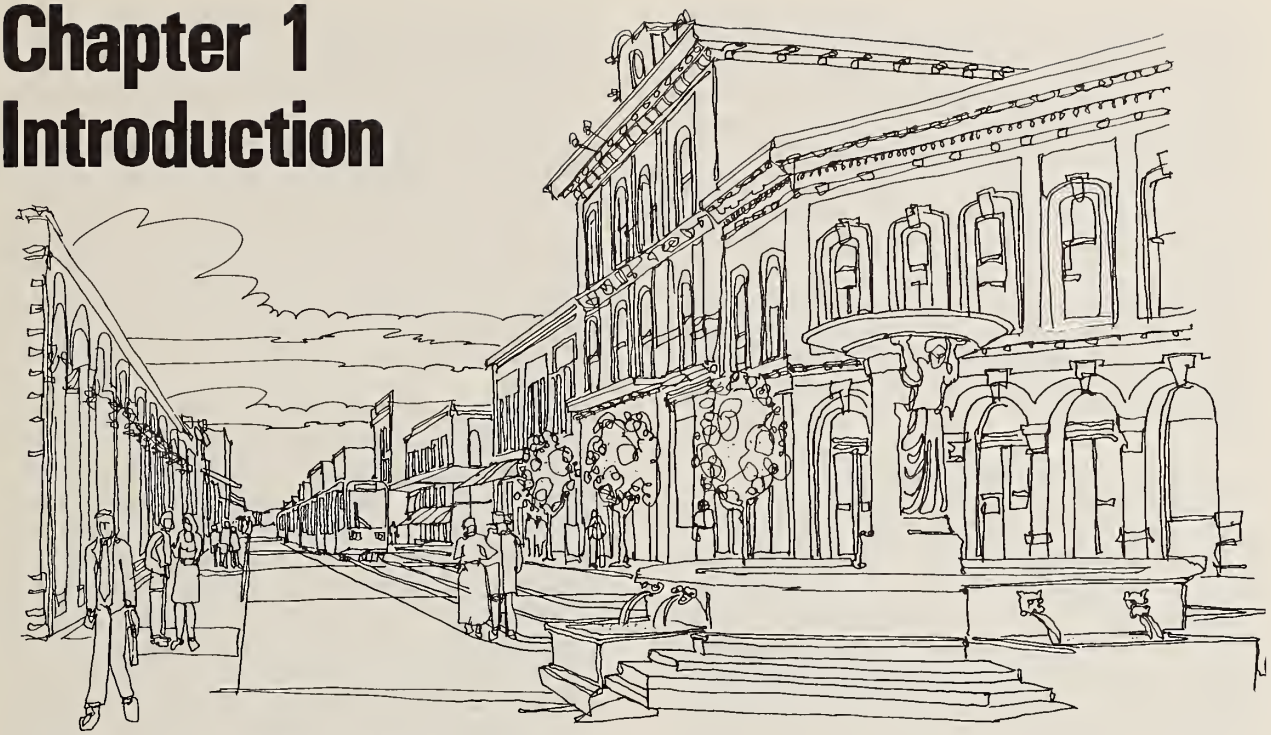
Chapter 1
Introduction



Light Rail on First Avenue in Skidmore Old Town
SOURCE: *Zimmer · Gunsul · Frasca Partnership*

Investment decisions for large transportation projects are complex, multifaceted phenomena. Generally requiring many years to bring to fruition, such decisions are often reduced at crucial junctures to raw political deals or technical data analysis on limited items. Throughout the range of alternatives considered, analyses completed and policymaking sessions which contribute to such investments, the imagery of a rational, sequential and wholistic decisionmaking process and substance dominates. Recent debate concerning both the desirability of certain transit investments and the extent to which inappropriate intrusion into the decisionmaking province of state and local government have occurred have highlighted at least some of the less rational and sequential aspects of transportation investments. This study seeks not to unravel the most appropriate federal grant process or the best structure for state and local investment decisions. Rather, it seeks to accomplish the following:

- To illustrate and analyze the facets of institutional and individual behavior in the process of transportation investments;
- To identify roles, procedures, processes, forces and factors which influence the character of multiorganizational decisionmaking;
- To assess the character of multiorganizational decisionmaking;
- To identify those factors which most centrally affect the outcome of such decisions.

The vehicle for accomplishing this task is a case study of a Light Rail Transit (LRT) investment in Portland, Oregon. Known as the Banfield project or Transitway, this investment provides an excellent, comprehensive example of the complexity of transportation decisionmaking. While no single case study can fully portray the range of issues inherent in such investments, this project does exhibit many of the important dimensions. It involves both highway and transit components, capital financing from both transit and highway sources, federal, state and local agency involvement, major changes in policy, technical and political actors and a significant time span.

Portland and the LRT

Light rail technology has recently emerged from a long hibernation in the United States. With almost the same vigor that tracks were torn up only three decades ago, many cities around the country are building or planning to build new light rail systems. Portland was among the forerunners in this trend having initiated the decision to build its LRT system in the early seventies. As the following material will show, LRT was not the preferred or only alternative when this effort began. Its emergence as the final choice reflected many factors, technical and political. More importantly, it was not just a simple matter of evaluating transit and highway alternatives, but rather more broadly a revolution in metropolitan thinking regarding preferred transportation systems. Understanding this emergence of a transportation technology, its selection as a preferred alternative and its role in the context of a metropolitan transportation revolution is the pragmatic context of this study.

More significant, however, is the context of the decisionmaking process which produced this outcome in Portland. As Chapter Two describes briefly and subsequent chapters more fully, the decision involved almost ten years, several false starts, significant policy shifts, and substantial experimentation with administrative procedures. More importantly, the participating jurisdictions were not hesitant about restructuring both the context and the character of the decisionmaking process. In some cases, participants were only too willing to attempt modifications of one another's internal policies and procedures. Far from a sequential completion of well-established decision steps, the Banfield represents a comprehensive evolution in both the process and the object of decisionmaking.

Transportation Decision Systems

Broadly speaking the analysis of transportation decision processes and systems has been the subject of many studies. One of the most recent was the Transportation Research Board's *Improving Decisionmaking for Major Urban Transit Investments*, published as part of the National Cooperative Transit Research and Development Program. While specifically an analysis of the Urban Mass Transportation Administration's (UMTA) required Alternatives Analysis process, the report observes that the overall structure and process required by UMTA "makes sense in general and in an abstract rational process." However, no urban area should be required to conform to it "unless that process truly fits the local decisionmaking context." Indeed, the general imagery of transit and highway investment decisions is of a linear, stepwise, continuous, logical process. Yet, as the above observation indicates, there are a multiplicity of decision models in practice, each with its own ground rules. Further, the fundamental notion of a rational, logical process may itself be questionable. While some observers attribute this to the intrusion of the political realm into technical processes, in fact, what they represent may be alternative pragmatic approaches to the fundamental question of "How do we get something built?" The fundamental procedures of any major public works investment may simply be curvalinear, iterative, discontinuous, inconsistent, discursive and multi-logical. Or, alternatively, the players may simply make up the rules as they go to fit the situation. Analysis of this context requires not improvements to the process but rather an understanding of the forces and factors which produce changes in the process.

Roles, role playing styles, perceptions of ends, perceptions of winning/losing and the consequences, the character of decision rules, the ease with which rules are changed and the fundamental credibility (induced and inherent) of the actors and the decision process are the focal points for this contextual approach. Institutions and institutional models of intergovernmental collaboration only provide a limited context for useful analysis. Beyond this framework there must be a broader appreciation for those factors which provide structure to the more ephemeral relationships between the public participants.

Key Factors in Understanding the Banfield Decision

Several major issues, concepts or ideas surface in the following discussion which provide a means for understanding the dynamics of the decision process. On a comprehensive level, the Banfield decision represented a major shift in the functional and philosophic role of transit in the region. This shift was a wrenching experience which set a context of opportunity in terms of exploring new transportation systems. It also ruptured the political fabric of transportation decisionmaking, realigning the roles and responsibilities of many political and technical actors.

From one perspective the federal grant-in-aid programs for highways and transit represent a process for decisionmaking in the pursuit of federal financing. In the absence of an established, formal metropolitan structure, these grant procedures provide a structure which is adapted to local needs. On the other hand, existing processes and mechanisms for metropolitan decisionmaking may serve as an alternative decision system. The appearance of stability in either case may be illusive in that the rigidity of intergovernmental collaboration and mechanisms for effectuating cooperation are far from those characteristic of single administrative organizations. They are far more manipulable and intangible. In the Banfield case the structures for decisionmaking and the participating organizations themselves underwent several major changes and transitions.

Concommitantly, the rules for decisionmaking were also very malleable. There were multiple rules initially reflecting legislative and administrative policies and procedures of the respective participants. As the discussion of the "Bill Hall Chart" later in this analysis will show, there were points when the rules were reinterpreted, redesigned and/or applied differently to make something happen. In the consideration of alternatives demonstrated, some of the players felt no compulsion against suggesting new approaches and procedures where they felt it appropriate. Thus, the sense of known rules and procedures was intermittent in the case of the Banfield project.

Often key people were catalysts in completing decision tasks or initiating major events. Yet there was no single individual that drove the process from start to finish. It was almost as if the role of key leader was constant and individuals emerged to fill it, rather than a single individual playing the role throughout the process. The roles of given organizations also changed over time reflecting internal organizational changes, adaptations and the shifting responsibilities assigned to or assumed by organizations. These organizational changes manifested significant impacts on the ensuing intergovernmental decision process.

Another dimension of some significance is the linkage between the political and technical realms. In some investment circumstances technical analyses and reports are window dressing, legitimizing already consummated political decisions. Alternatively, many well-founded

technical recommendations have foundered for the lack of political support. For the Banfield, this relationship was extremely symbiotic, reflecting both the personal ties between technicians and politicians and the general consensus that the final project had to be technically sound and politically saleable. Unlike other metropolitan areas, Portland did not start with established commitments to a given project. Further, the revolutionary change in metropolitan transportation philosophy created a mutual dependency that probably forced greater technical political cooperation than might otherwise have existed.

Communication processes and avenues were also important. Much of what is related here is told only from the perspective of local officials. Few interviews were conducted with federal representatives. The perspective evidenced by many of the local officials was that federal agents were often uncooperative or unsure about what Portland was trying to accomplish. It is not possible to prove this given the information presented here. Similarly, it is probably also impossible to prove whether the federal agencies unduly intruded upon local decisionmaking prerogatives. Yet, it is possible to suggest that one of the clear dimensions of the decison process was the imperfect communications between the participants. The ability to understand reasons for actions, objectives of programs and simple exchanges of information was significantly impacted by the flexibility of the Banfield decision or exploited by the participants. The presumption of perfect information and knowledge is clearly in error here. More importantly, the use of the imperfect communication process was also a tool for the attainment of goals by some of the players; intentionally garbling messages may buy needed time. Similarly, the inability to clearly perceive the reasons for a participant's actions may stave off conflict. Finally, explaining responsibility for actions remains difficult because the participants rightfully retain their interpretation of events as correct.

Financial responsibility and liability issues are also highlighted here. The recent creation of a transit block grant has interjected changes in the fiscal relationships between grantor and grantee. In Portland, the use of the interstate withdrawal process to fund the Banfield produced a block grant effect. In this case, however, it was taken one step further in the financing of transit and highway improvements.

A final dimension is the question of goals and objectives. Multiple organizational settings permit, if not encourage, a diversity of objectives. There is no necessity that all participants should or must agree upon goals, but simply that their mutual participation or nonparticipation will serve their individually determined objectives. The Banfield illustrates this in the mixed motive agendas of the participating jurisdictions.

The Transportation Research Board (TRB) report cited above suggests:

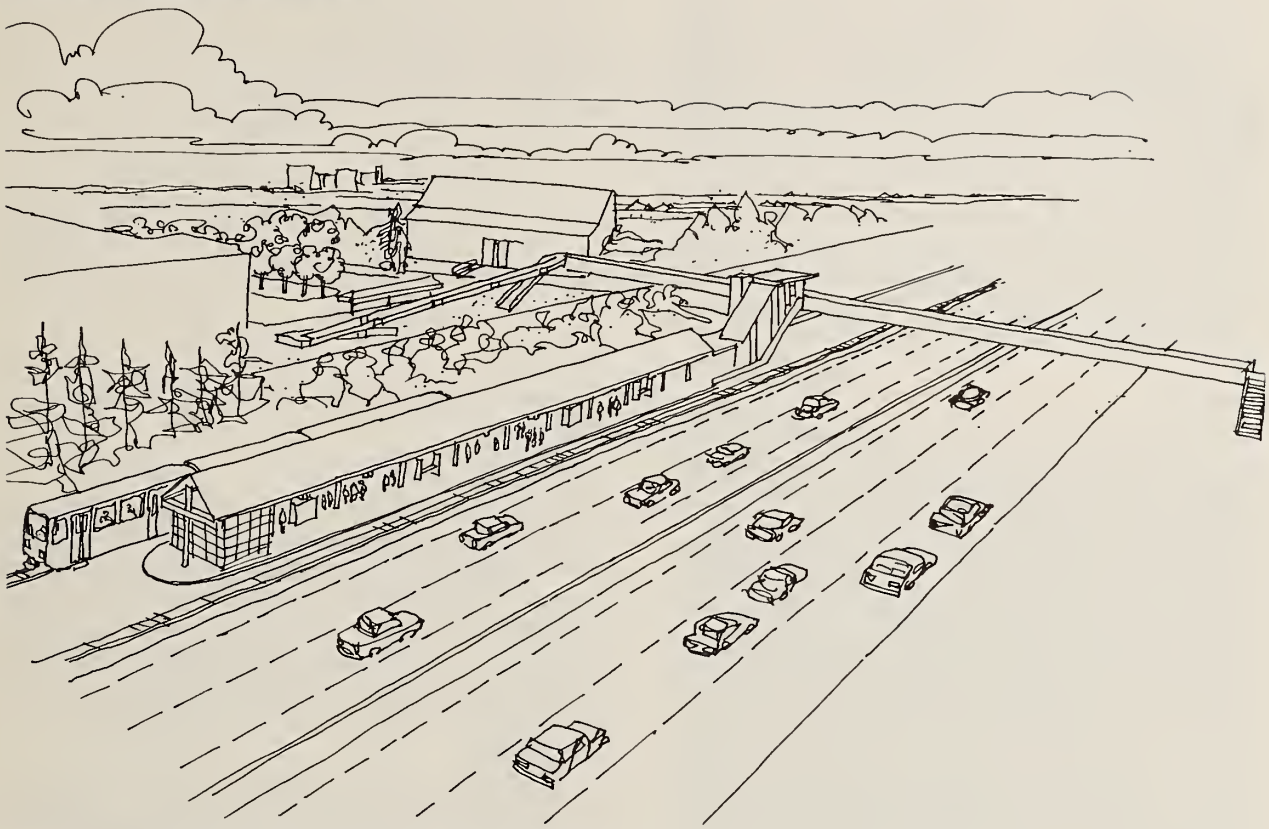
> Coordinated multiagency work programs can be carried out successfully if properly managed, if roles are clearly defined for managing work elements and participation in decisionmaking processes, if mechanisms are established for periodic progress review, and if a lead agency has sufficient authority and competence (page 5).

The inherent message is that despite the apparent incommensurability of multiorganizational settings with a rational sequential decision process, these settings can be made to fit a logical sequential process if appropriate steps can be taken. This report suggests, however, that some of the fundamental pieces of this prescription are probably missing in many transportation decision systems. The pay-off is not in managing the institutional structure properly but in controlling the forces that tend to warp it.

Summary

There are some inherent limitations to the findings of this study. Although interviews were held with over twenty officials, the predominant perspective reported here is local in character. Public documents from the files of metropolitan, state, local and federal agencies were consulted to remedy this deficiency. Yet, they cannot, totally compensate for the limited interviews with federal officials. Moreover, the Banfield may uniquely raise some issues in terms of its historical context. Despite these limitations, however, it is well worth the chronicaling of the transportation decision process. Only through continued attention to the character of the decision process will we continue to improve the success of selecting the right project and its implementation.

Chapter 2
Background



Hollywood Light Rail Station adjacent to the improved Banfield Freeway
SOURCE: *Zimmer · Gunsul · Frasca Partnership*

The Banfield Light Rail Project: A Thumbnail Sketch

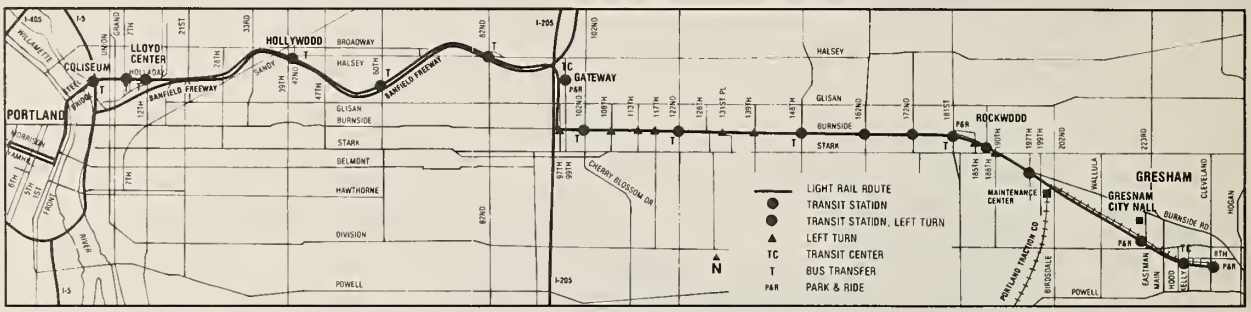
The Banfield project is simultaneously an LRT system, 140 other highway and transit projects including a freeway improvement, and a major experiment in shaping regional growth management and infrastructure development. In its first element, the project consists of approximately 15.1 miles of LRT trackage, a maintenance facility, overhead electrification, 26 LRT vehicles of European design and twenty-five stations. The system will run from downtown Portland east to downtown Gresham. In addition, the project involves 4.3 miles of freeway improvements along the Banfield Freeway (I-84). The anticipated total cost (in 1984 dollars) is $307.7 million, with the LRT portion requiring $209.7 and highway-related costs of $98 million.

Guideway Path

While the LRT will run at grade for its entire length, the physical environment of the trackage varies substantially. In downtown Portland the LRT will start from a loop turn along Morrison and Yamhill streets which cross the Portland Transit Mall. From this point it exits the downtown core to run parallel with the Willamette River along First Avenue in a northerly direction. It crosses the Willamette River over an existing bridge heading east past Lloyd Center, the largest concentration of office and commercial space outside of downtown. The LRT then enters Sullivan's Gulch through which I-84 transverses. Paralleling the freeway for approximately four miles, it then turns south past the Gateway Shopping Center to parallel the eastern outerbelt of Portland (I-205). Following I-205 south for two miles, it then turns east on Burnside Street through a mixed residential/commercial setting. The line continues along Burnside to 197th Avenue where it then follows the Portland Traction Company line (an old railroad right-of-way) east to the end of the line in Gresham. Accommodation of the line within this pathway requires major street reconstruction and utility relocation in downtown Portland and along Burnside Street. The I-84 segment required moving and straightening the freeway to create a suitable guideway and observe a twenty-

one foot clearance from an existing mainline railroad track. Provision for the LRT along I-205 was made in the design of the freeway. Minimal reconstruction is planned for the Portland Traction Company line or in downtown Gresham.

the capacity to comfortably carry 166 seated and standing passengers will be coupled into two-car trains during rush hour trips. The vehicles will operate every 10 minutes during midday and every five minutes during rush hours. A one-way trip along the entire route will require approx-



Banfield Light Rail alignment
SOURCE: *Tri-Met*

Stations

The twenty-five stations will be of three distinct configurations serving the following locations: downtown Portland, Old Town, Memorial Coliseum, Lloyd Center, Hollywood, Gateway, Hazelwood, Rockwood, and Gresham. Along the eastside portion, service will be provided for a diverse collection of schools, neighborhoods and businesses. The three types of shelters will reflect the environment of their location. Downtown, simple shelters will offer weather protection. Stations within Sullivan's Gulch will be split level, reflecting the topography, with LRT stations at freeway level and buses arriving at the street or overpass level. Elevators and/or stairs will permit rider connections. On the eastside, stations will provide protection from a notorious east wind condition with street- or sidewalk-level rider access featuring ticket vending machines, benches, lighting, telephones and transit information signs. Stations, furniture and design will complement the surrounding physical environment, with curb-high platforms 10 feet wide and 200 feet long. Stations serving major bus transfer points will be more elaborate.

imately 45 minutes, approximately 15-20 minutes faster than by bus.

Service Innovation

Fare collection will involve a self-service fare system. Riders will self-validate their tickets at stations or use monthly passes. Principally a system of self-service payment, random checks by fare inspectors will be performed to confirm proof of payment. This will permit passenger boarding at all four vehicle doors and reduce station dwell times. In addition, the LRT will be served by a restructured bus system on the eastside of Portland emphasizing a grid network.

Ridership

At its opening in 1986, the LRT is expected to carry over 15-20,000 riders a day during its first year of operation. Projected ridership is expected to increase to 42,500 daily in 1995, with a peak rush-hour load of 6,800 passengers per hour. Coupled with 119,000 trips daily on the freeway portion of the corridor, total transportation loads will approximate 161,500 by 1995. This will be close to the maximum carrying capacity of the corridor.

Tri-Met Light Rail vehicle
SOURCE: *Tri-Met*

Vehicles

Vehicles are being built by Bombardier Limited of Quebec, Canada. The latest in transit technology, they are not experimental. The design is based on a proven and well-tested configuration developed by BN of Belgium. Single cars with

Auxiliary Facilities

In addition to a major, 12.3-acre maintenance facility located in Gresham, the system will have several other ancillary features. Three major park-and-ride lots will provide 1,500 auto spaces. Fourteen signalized intersections will permit

motorist crossing of the tracks on Burnside Street. Pedestrian crosswalks will also be provided along this portion of the trackage. Three timed-transfer bus centers will provide convenient LRT/bus transfers.

Operating Characteristics

Normal weekday and Saturday service will begin at 5:00 am and end at 12:00 midnight. Sunday and holiday service will begin at 8:00 am and end at 12:00 midnight. Service frequencies for the LRT line, based on Tri-Met policy considerations, will be as follows:

Operating Schedule

	Maximum Headways in Minutes		
Time Period	*Weekday*	*Saturday*	*Sunday/Holiday*
5:00 a.m. to 6:30 a.m.	20	30	—
6:30 a.m. to 7:00 a.m.			
Gresham to Portland	10	30	—
7:00 a.m. to 7:30 a.m.			
Gresham to Gateway	10	30	—
Gateway to Portland	5	30	—
7:30 a.m. to 8:00 a.m.			
Gresham to Gateway	10	20	—
Gateway to Portland	5	20	—
8:00 a.m. to 8:30 a.m.			
Gresham to Gateway	10	20	—
Gateway to Portland	5	20*	30*
8:30 a.m. to 9:00 a.m.			
Gresham to Gateway	10	10	30
Gateway to Portland	5	10*	30*
9:00 a.m. to 4:00 p.m.			
Gresham to Portland	10	10	30
4:00 p.m. to 6:00 p.m.			
Gresham to Gateway	10	10	30
Gateway to Portland	5	10*	30*
6:00 p.m. to 7:00 p.m.			
Gresham to Portland	10	30	30
7:00 p.m. to 9:00 p.m.			
Gresham to Portland	10	30	30
9:00 p.m. to Midnight			
Gresham to Portland	30	30	30

**No turnback service, through service between Gresham and Portland only.*

Source: Draft operating plan for the Banfield/Burnside LRT line, Tri-Met, June 1980.

Normal weekday service during the morning will be characterized by twenty-minute headways. Morning and afternoon peak period service will have five-minute headway service between the Portland terminal and Gateway station. From Gateway to Gresham headways will be ten minutes during morning and afternoon peaks and midday. Night service will be based on thirty-minute headways. Sundays and holiday service will be a constant thirty-minute headway over the entire system. Saturday service will be thirty-minute headways between 5:00 am and 7:30 am, twenty-minute headways from 7:30 am to 8:30 am, ten-minute headways from 8:30 am to 7:00 pm and thirty-minute headways from 7:00 pm to midnight over the entire system.

At this time Tri-Met is still developing a system start-up plan and operator training program. Coordination with bus system operations is still in the development stage. However, both the Gresham terminal and Gateway station will be major timed transfer stations, providing bus feeder service for LRT patrons.

Construction Impacts

Construction impacts of the LRT/highway project are expected to generate 1,800 worker years or an average of 665 jobs per year during the construction period. This will pump more than $339 million (1980 dollars) into the regional economy. Requiring a complex timing of both the LRT and highway components, the total project construction period will be just over 3½ years. In addition, related projects, $3 million in sewers along East Burnside and $5 million in downtown improvements matched by a companion Local Improvement District, bring the total capital investment to over $350 million.

Financing

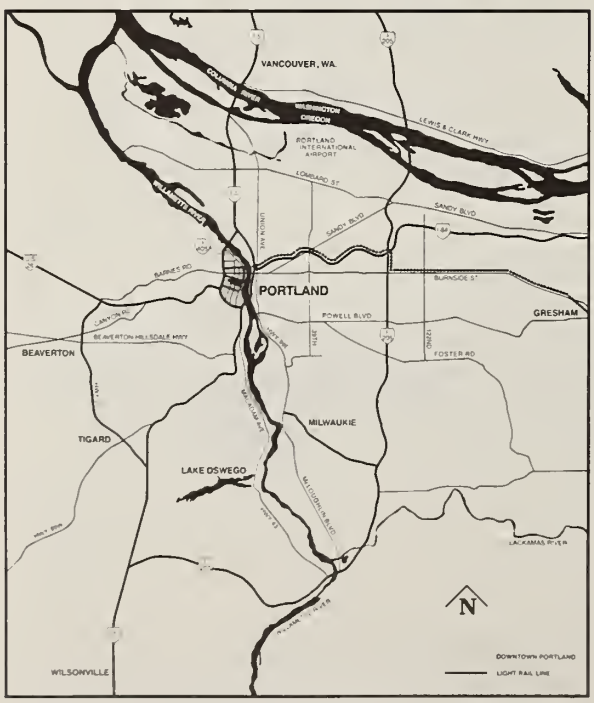
The federal government will pay for about 85 percent of the total project cost, predominantly through Interstate transfer funding. These funds were made available as a result of two Interstate segment withdrawals. An additional $13.9 million is provided by Section 3 grants from the Urban Mass Transportation Administration. The local matching funds for these grants are being provided by the State of Oregon and Tri-Met. State gas taxes will provide $14.6 million, a special state LRT construction fund $25 million and $13.2 million from Tri-Met resources.

The Scope of the Transportation Investment

Another dimension of the Portland investment process is the package of related transit and highway improvements. Under the Interstate withdrawal provisions of the Federal Highway Act of 1976, metropolitan areas with the consent of the Metropolitan Planning Organization (MPO), state governor and the Secretary of Transportation can fund substitute projects which may be either transit, highway or both in character. In packaging the local decision for the Banfield corridor, a substantial portion of the entitlement from two Interstate withdrawals was promised to the funding of 140 projects. These projects, spread throughout the metropolitan region, cover a variety of efforts including two future LRT segments to the west and south of Portland and a number of smaller transportation service improvements. Some of these projects, first authorized for funding in 1978, have already been completed. Others are still on the regional transportation plan to be completed at a future date. While benefiting the regional transportation system, they are also critical political inducements to a strong local consensus on the desirability of the Banfield Transitway and its status as the region's number one transportation project.

Finally, the Banfield project is part of a much greater transportation effort reflecting the region's need for an effective transportation system. In 1973 the Oregon legislature passed Senate Bill 100 which established a statewide land-use planning process. Coupled with a desire to develop a transit alternative for the metropolitan area which limited neighborhood impacts and preserved the vitality of the Portland Central Business District (CBD), a basis for an integrated transportation development planning process was born. While not employing a value capture philosophy directly, the LRT is intended to have significant positive land-use impacts throughout its corridor. In this context, development projects have been proposed for 15 of the LRT stops. Most LRT-related development is not anticipated to occur until after the line has been in operation for five to seven years. The greatest portion of the development potential is located along First Avenue in downtown Portland. According to Economic Research Associates of San Francisco (ERA), the LRT system will substantially enhance the development of this part of downtown. Demand exists for between 2 to 2.6 million square feet of office space, 240,000 to 400,000 square feet of retail space and 550 to 700 residential units. In east Multnomah County the forecast is for 20 percent of all residential development east of the Willamette River to materialize within a five-minute walk of the LRT line. In Gresham, demand potential for 2,000 to 2,300 multi-family units, a 1-million-square-foot shopping center and between 400,000 and 700,000 square feet of office space exists within the vicinity of the LRT stations.

The Demographic Setting



The Portland metropolitan region
SOURCE. *Portland Development Commission*

The Portland Standard Metropolitan Statistical Area (SMSA) and the service area for the Banfield Draft Environmental Impact Statement (DEIS) are portrayed in Appendix A. On the westside of the Willamette River, the principal area of service is the Portland Central Business District. On the eastside of the River, the area is broken into two parts: East Portland (the Willamette River to approximately 82nd Street) and East Multnomah County (82nd Street to the County's east boundary). All references to the Study Area in the following discussion encompass the area east of the Willamette River to the County boundary unless otherwise noted.

In 1970 the population of the metropolitan area was 1,007,130. By 1980 this figure had grown to 1,245,020 based on the 1980 census. The population estimates used in preparing the DEIS were as follows:

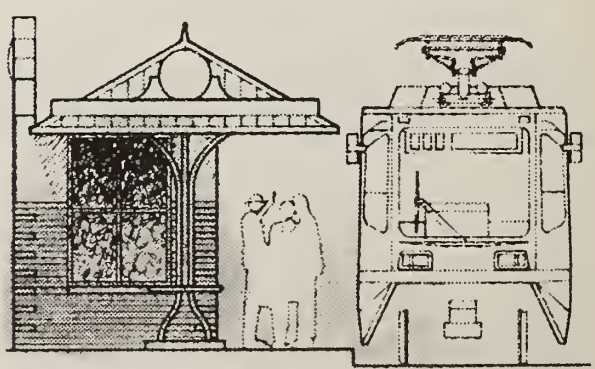
1975	1,090,700
1990	1,398,000
2000	1,608,400

The latest population estimate for the metropolitan area in the year 2000 is 1,739,930.

Regional employment is summarized in the following table:

Table 1
Portland SMSA Labor Force and Employment Growth (1970-1980)
(thousands of employees)

	1970	*1975*	*1980*
Wage and Salary Employment	380.6	441.5	555.2
Manufacturing	85.7	90.2	114.2
Construction	17.3	18.3	24.6
Transportation, Communications, Utilities	30.2	30.5	36.3
Trade (Wholesale & Retail)	92.6	111.5	142.2
Finance, Insurance, Real Estate	24.7	32.1	45.7
Services	67.7	86.2	111.0
Government	62.4	72.7	81.4



A typical Burnside Street Light Rail station
SOURCE: *Zimmer · Gunsul · Frasca Partnership*

Downtown employment in Portland is as follows:

Table 2
Portland Downtown Employment

1970	49,983	(Source: DEIS)
1980	82,140	(Source: METRO)
2000	128,450	(Source: METRO)

Employment in the downtown area increased by 64.3 percent over the period 1970-1980. The corresponding figure for the SMSA is 45.9 percent and the study area 69.5 percent.

Focusing on the Study Area, the 1980 demography was as follows:

Land Area	98.74 Square Miles	
Population	304,006	
Male	47.5%	
Female	52.5%	
Age		
Under 5 years	8.4%	
5–14	11.5%	
15–24	18.2%	
25–44	30.6%	
45–64	18.7%	
65 & over	12.6%	
Race		
White	94.0%	
Other	6.0%	
Household size	2.4	
Median Income	$14,610	
Housing		
Total Units	128,609	
Occupied Units	122,722	
Owner-Occupied	69,724	
Rented-Occupied	52,998	
Development Density (Average)	3079 persons per square mile	
Employment		
Manufacturing	25,751	(17.4%)
Construction	9,035	(6.1%)
Transportation, Utilities, Communication	13,880	(9.4%)
Trade (Wholesale & Retail)	38,013	(25.7%)
Finance, Insurance, Real Estate	11,862	(8.0%)
Services	41,774	(28.2%)
Government	6,079	(4.1%)
Agriculture	1,768	(1.1%)
Total	148,162	

Growth Forecast 1980–2000

	1970	*1980*	*2000*	*Growth*
Population	293,045	304,006	385,000	81,654 (26.9%)
Housing	103,627	128,609	180,690	52,081 (40.5%)
Employment	87,427	148,162	166,500	18,338 (12.4%)

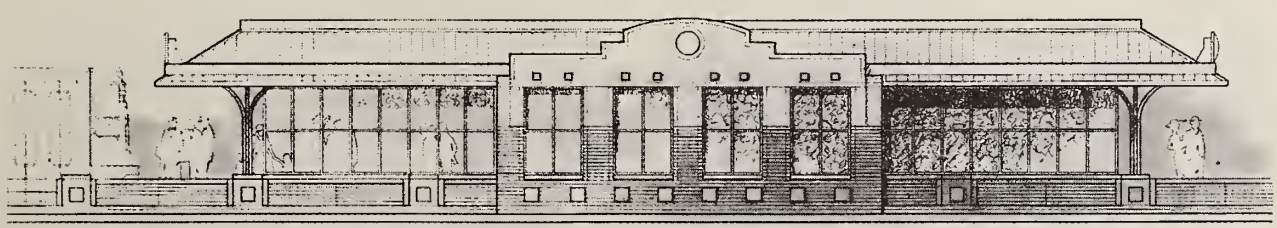
For the City of Gresham, the population figures are as follows:

Total Population	33,005	
White	96.0%	
Other	4.0%	
Age		
Under 5 years	8.7%	
5–14	16.9%	
15–24	17.3%	
25–44	34.5%	
45–64	14.4%	
65 & over	8.2%	
Employment		
Manufacturing	2669	(16.9%)
Construction	1154	(7.3%)
Transportation, Utilities, Communication	1373	(8.7%)
Trade (Wholesale & Retail)	4091	(26.0%)
Finance, Insurance, Real Estate	1460	(9.3%)
Services	3953	(25.1%)
Government	781	(5.0%)
Agriculture	281	(1.7%)
Total	15,762	

During the mid-70's the East County area witnessed significant development and growth. The above figures indicate that this trend will continue into the future. However, the recent economic recession has slowed this growth trend somewhat.

The Banfield Chronology: A Brief Overview

A schematic outline of the entire local decision process is provided in Appendix E. Local decisionmaking started from a negative perspective, opposition to a major freeway segment. Initially proposed by the metropolitan area in the early sixties, the Mt. Hood Freeway would have connected Interstate 5 and Interstate 205 along the



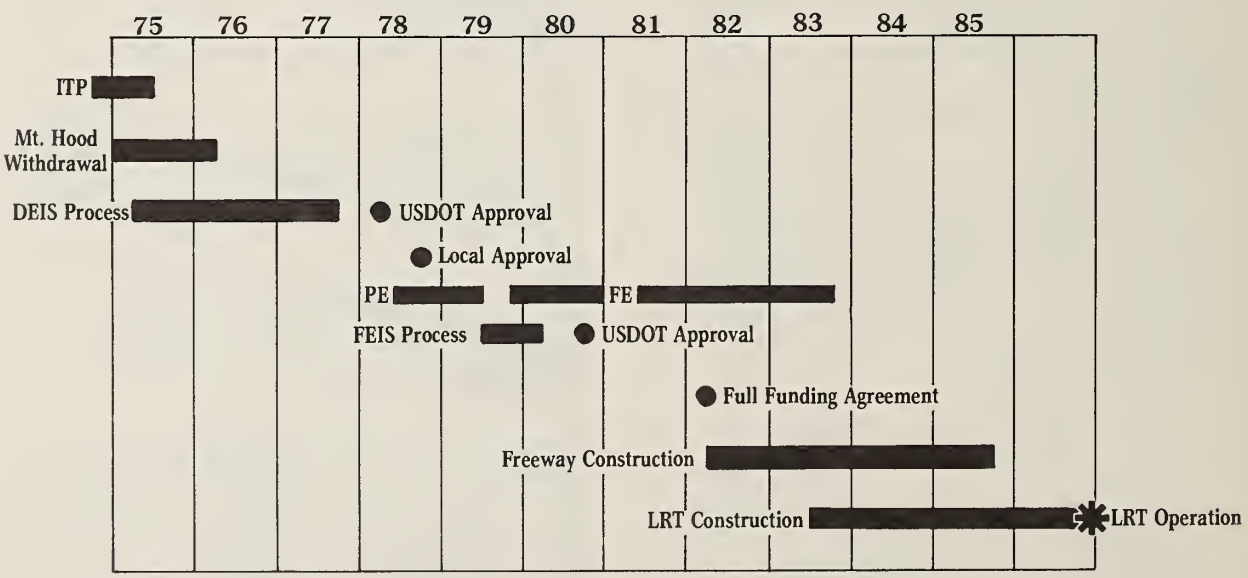
Side view of a typical Burnside Street Light Rail station
SOURCE: *Zimmer · Gunsul · Frasca Partnership*

Powell Boulevard corridor in Portland. (See Map in Appendix A). In reality an intra-urban highway, this Interstate segment was included in the regional transportation plan as part of the regional Interstate system. Until the late sixties, the Federal Highway Administration (FHWA) opposed this segment because it did not meet the criteria of the national Interstate program. However, after significant local political and technical effort, the FHWA finally added the segment to its Interstate program. Subsequently, a freeway revolt came to Portland. The proposed freeway would have required removal of approximately one percent of the housing stock in Portland, severely impacted southeast Portland neighborhoods and primarily served commuter traffic from the East County area. As the state moved toward final stages of planning for this freeway, substantial citizen opposition developed.

While not the sole or predominant issue of the 1972 Portland mayoral campaign, the freeway issue did have significant political impacts. The election of Neil Goldschmidt, a progressive, liberal Democrat, to the mayor's office in 1972 set the stage for a major reevaluation of the region's transportation system. Goldschmidt proceeded to develop an in-house technical staff capable of articulating alternatives to the auto-dominated, alternative transportation approaches. Then Governor Tom McCall appointed a Governor's Task Force (GTF), chaired by Goldschmidt, to assay transit as a reliable option to more freeways in the region. The GTF was critical not only to the identification of transportation corridors with transit capabilities but also to the strengthening of the regional Council of Governments, the Columbia Region Association of Governments (CRAG).

Formed in 1969, CRAG assumed responsibility for the then current regional transportation plan, the Portland Vancouver Metropolitan Area Transportation Study (PVMATS). In 1972 CRAG, under state legislation, became a mandatory Council of Governments (COG), requiring membership of all local governments within the metropolitan area, including Clark County, Washington and its local governments. Subsequently, the GTF recommended strengthening the technical capability of CRAG which put it into a position, with the help of the Portland city planners, to investigate transportation alternatives for the region. At the instigation of Goldschmidt, CRAG and Governor McCall proposed withdrawal of the Mt. Hood Freeway to the US Department of Transportation (US DOT) in 1975. At that time, the region had the option of relocating the proposed freeway to another corridor or

BANFIELD LRT IMPLEMENTATION PROCESS



Major milestones in the ten year process of implementing the Banfield Light Rail project
SOURCE: *Tri-Met*

planned regional transportation system. Having campaigned on a neighborhood preservation and reinvigoration of the CBD theme, Goldschmidt sought a transit alternative which would meet the transportation needs of the city and the region. After procedural deficiencies and a subsequent court decision held up the completion of the Final Environmental Impact Statement (FEIS) for the Mt. Hood Freeway, Goldschmidt managed to form a coalition of state and local officials willing to investigate substituting a major transit investment, either rail or bus capital expenditures. The passage of the Federal Highway Act of 1976 extended these options to include substitute highway projects. Further, the entitlement created by the withdrawal of a freeway was to be escalated on the basis of the latest cost-to-complete estimate of the FHWA for the Interstate system. These new provisions caused delay in the approval of the Portland withdrawal request. They also provided the political ammunition necessary to

galvanize a local consensus on regional transportation improvements.

In June, 1976, the Secretary of Transportation approved the withdrawal, permitting the development of transit options to begin in earnest. It should be noted that until this point, the transportation focus in the Portland region had been anti-freeway—not pro-light rail, or any other major project for that matter.

As part of his withdrawal approval in 1975, the Governor had designated, at CRAG's request, three major transit corridors for transportation improvements. In September, 1975, a state Banfield Citizens' Advisory Committee was formed as part of the Oregon Department of Transportation's (ODOT) planning process for the Banfield. ODOT had been designated lead agency for the corridor in August, 1975. These actions initiated the planning process for the Banfield corridor which was designated the region's number one priority in September, 1976. This commitment was made to the eastside partly for the political purpose of replacing the lost freeway, the perceived necessity of making some form of improvement to stave off eastside congestion, and the availability of an already well established eastside freeway corridor. A related reason was the pending interconnection of the I-205 freeway to the Banfield Freeway. The I-205 freeway had been held up for years on a number of environmental grounds. A local political agreement was reached to permit progress on I-205 construction as part of the overall decisionmaking for the Banfield.

The LRT concept first surfaced officially as a result of Multnomah County Commissioner Mel Gordon's and Goldschmidt's request for a State Public Utility Commission (PUC) study in 1973. No commitment had been made to a specific project but there was interest in exploring the feasibility of rail transit on existing rail lines in the region. The PUC study was not a definitive evaluation of the rail option for the region but it did provide input to the GTF staff work and final report. The LRT option was included in the initial DEIS work for the Banfield in 1975 but was dropped as technically unfeasible in 1976. In 1977 it was reinstated after independent technical analyses by Tri-Met, which had commissioned a study by Wilbur Smith and Associates. Until 1976, Tri-Met had been a predominantly silent partner in the decisionmaking process. Formed in 1969, it was still in its organizational infancy and did not possess the staff capabilities of other local agencies. Subsequent to the reinstatement of the LRT option in 1977, it became lead agency for the Banfield LRT alternatives (all rubber-tired alternatives were the responsibility of ODOT). After evaluating five major transportation system configurations for the DEIS, the LRT emerged as the preferred alternative for the corridor.

The technical justification and process for this determination was extremely convoluted. Funding for the DEIS had been made available from the Interstate withdrawal funds by FHWA for the Banfield corridor. With the emergence of a major transit alternative, however, the Urban Mass Transportation Administration (UMTA) became a major partner in the process. The planning and approval processes of these two federal agencies were significantly different. Consequently, the Portland region had to "invent" and/or persuade the two federal agencies to adopt a single approach to corridor analysis. After significant local persuasion, UMTA agreed to accept a modified FHWA process. Yet, tension remained concerning the technical approach to modeling the ridership for the corridor. The Banfield was one of the the first new light rail starts nationally and the analytical models to evaluate it, in other than a highway forecasting approach, were limited. When Tri-Met assumed responsibility for transit modeling, technical accommodations were reached which ultimately led to the selection of the LRT.

After local approvals in late 1978, the federal government reviewed the project but did not provide its approval until 1980. The process of federal project approval was troubled by UMTA/FHWA tensions, federal funding shortfalls and locally perceived federal technical "nitpicking." It is generally accepted locally that Goldschmidt's appointment as Secretary of Transportation played a key role in gaining final federal approval.

Funding of the Banfield project was almost an afterthought. The presence of the Interstate withdrawal entitlement clearly allowed local officials to assume away, temporarily, the difficult question of where the money would come from. Subsequent to the local approval of the LRT, a request was made to UMTA to fund $85.7 million of the project with Section 3 capital funds and the remainder with Interstate transfer monies. Congress concurred in the use of Section 3 funds in December, 1980, directing UMTA to issue a "Letter of Intent" for the project. In March, 1981, however, UMTA indicated it was unable to fund the project, citing a new federal policy banning funds for new rail starts.

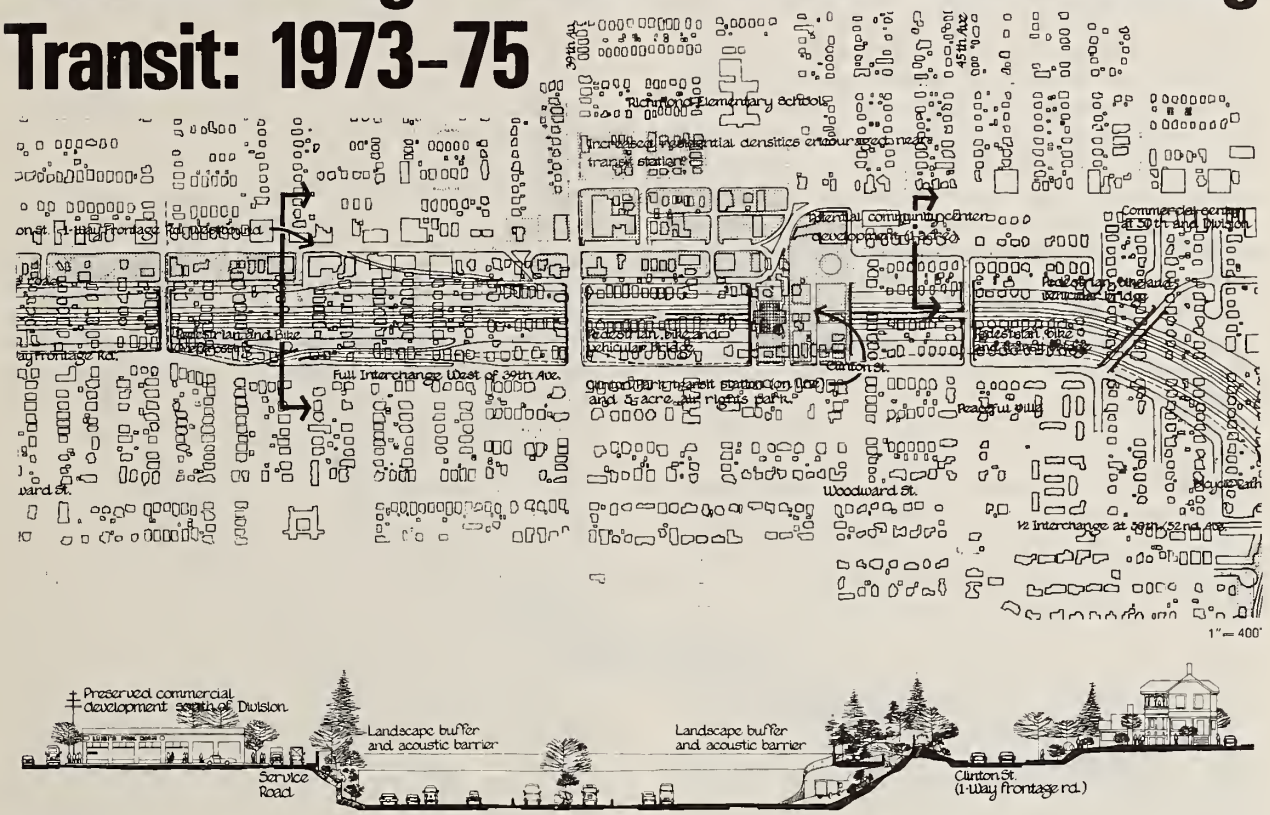
Tri-Met had begun developing a program for securing the local matching monies in 1978. Unlikely to secure favorable treatment in the financial markets because it lacked substantial construction experience, it opted to seek the matching funds from the state legislature. After convincing a new governor to accept this request, it was stalled by US Representative Robert Duncan who believed that Tri-Met, to demonstrate its commitment to the project, should provide the matching monies. After substantial negotiation, Tri-Met agreed to provide a portion of the funds. Subsequent approval by the legislature of a $16 million authorization for the remaining monies rounded out the package.

The Reagan Administration's "No New Rail Starts" policy necessitated a new funding arrangement. Senator Mark Hatfield, Chairman of the Senate Appropriations Committee and Representative Les AuCoin, a member of the House Appropriations Sub-Committee on Transportation were subsequently able to negotiate an alternative arrangement for funding with US DOT. Suggested by local officials, the final package involved a Full Funding Agreement financed almost entirely from Interstate

transfer funds in exchange for a Letter of Intent promising $76 million in capital improvement funds to the Portland area's various bus-related projects, particularly the westside corridor. This agreement took the pressure off the federal budget for new Section 3 rail grants and reduced short-term budgetary exposure to the annual cash-flow requirements of the project. Funding for the project arrived in Portland in the hands of UMTA Administrator Arthur Teele in April, 1982. Presenting the Full Funding Agreement at the ground-breaking ceremonies for the Ruby Junction Maintenance Facility, Teele praised the Portland area for its diligence and efforts in developing the project.

With construction underway, the project is slated for completion in mid-1986. The project is being managed jointly by Tri-Met and ODOT. Tri-Met is overseeing the construction of the LRT, while ODOT supervises the highway improvements and right-of-way acquisition. Construction of the project is being phased, with highway work scheduled in two contracts from west to east, and LRT work phased from east to west in several contracts. The first vehicle is scheduled to arrive in February, 1984, with testing to begin thereafter. The last vehicle is scheduled for arrival in mid-1986, just before service commences. Pending expeditious completion of all construction, revenue service will commence in Summer, 1986.

Chapter 3
Withdrawing the Mt. Hood and Selling Transit: 1973-75



View of the Mt. Hood Freeway cutting through SE Portland neighborhoods
SOURCE: Mt. Hood Freeway Draft Environmental Impact Statement

The Banfield process really began with the withdrawal of the Mt. Hood Freeway. The major actors behind this effort were Neil Goldschmidt and Governor Tom McCall. Goldschmidt, supported by County Commissioners Mel Gordon and Don Clark, sought a major alternative to the highway proposals of PVMATS. The Mt. Hood Freeway had generated substantial political debate within the city based on perceived detrimental impacts on southeast Portland. While these impacts would have been substantial, removal of the freeway did not presuppose an alternative approach. Goldschmidt supported transit improvements to maintain the viability of the inner city, minimize the need for highway improvements and improve the commercial and retail viability of the downtown core. PVMATS emphasized a regional highway network which would have precluded a central core focus and supported suburban transportation networks with minimal CBD benefits. Further, there was a growing concern among local political officials that the proposed new freeways would overtax the financial resources of the region. Multnomah County officials interested in providing transit services to eastside constituents became allies of Portland in supporting some form of transit improvement. Yet, despite these concerns, no single project or approach had been identified for the region.

Genesis of Local Government Interests in Transit

The Mt. Hood DEIS process had produced substantial citizen unrest, particularly in southeast Portland. Spurred on by Sensible Transportation Options for Portland (STOP), a suit was filed in 1973 challenging the procedural and technical adequacy of the DEIS. A 1974 judicial opinion brought a halt to the decision process for the freeway, providing an important hiatus. Goldschmidt had appointed a Citizen Advisory Committee in 1972 to review the desirability of the freeway and to suggest possible alternatives which would meet the city's policy objectives. This Committee's recommendation to abandon the freeway and develop a metropolitan transit option seemed to lay the political foundation for the transportation initiatives that followed the court decision.

Support for transit also grew from the Public Utilities Commission study of existing rail corridors in the region. Commissioned in 1973 at the joint request of Multnomah County Commissioner Mel Gordon and Goldschmidt, the study reviewed the potential for establishing light rail service in the existing freight and passenger corridors. The study concluded that this approach was possible but also indicated potential conflict between freight and transit service on existing trackage. It also indicated that a southern route to Oregon City held the best short-term potential for the development of light rail service.

Gordon used the results of the PUC study to support his advocacy of LRT in the region. He persuaded the County to support LRT long before any other jurisdiction. In this effort he was aided by Commission Chairman Don Clark who was troubled by the highway emphasis of the Interstate 205 outerbelt. He saw transit as a major improvement over the continued development of auto-dominated systems.

Clark had actively opposed I-205, contributing to the delay in its construction. Working with Gordon, Goldschmidt and Glenn Jackson, Chairman of the Oregon Transportation Commission, a political agreement was reached to permit progress on the outerbelt in 1975. Jackson agreed to support withdrawal of the Mt. Hood in return for progress on I-205 and improvements on the Banfield Freeway which would make it into an Interstate standard east-west connector between I-205 and downtown Portland. Clark agreed to drop his opposition to I-205 in return for its redesign to include a transit guideway. Relocation of the I-205 was also proposed, adversely impacting the obsolete Rocky Butte Jail. The jail was moved to downtown Portland and a new facility built with federal money. These agreements formed a cornerstone for the remainder of the decisionmaking process.

These initial political stirrings for a transit option were substantially unsupported by comprehensive technical studies, particularly in terms of specific corridors and service improvements. The thrust was to wean Portland away from a highway-based system and buy time to develop a balanced alternative using transit and limited highway improvements.

Portland's regional transit system, in the presence of Tri-Met, was only three years old, having been formed in 1969. As an agency, it was principally concerned with the operation of a bus fleet and had not developed a sophisticated transportation planning capability. Indeed, in the words of Steve McCarthy, former Assistant General Manager of Tri-Met from 1974 to 1976, during this period and until 1976, Tri-Met did not even have the capacity to adequately site a bus shelter. Hence, the agency lacked the political position to lead the changes in the transportation system.

The Governor's Task Force (GTF)

At the request of Goldschmidt, Governor McCall formed a special Task Force to investigate transportation options for the region in 1973. Chaired by Goldschmidt, this task force was a sub-committee of CRAG. Its charge was to investigate the transportation options open to the region on a systems scale and make recommendations concerning both the physical and institutional options. Goldschmidt's influence in the process was substantially enhanced by his chairmanship of CRAG. A weighted voting scheme of the CRAG Board gave him fifteen votes. With the votes of the Multnomah County representative and the support of any other member, Goldschmidt had the necessary leverage to drive the reevaluation of the region's transportation future.

The technical staff for the GTF was provided by Systems Design Concepts (SyDec), a Washington, D.C. based consulting firm. The principal SyDec representatives were Lowell Bridwell, a former FHWA Administrator, Arlee Reno and Joe Stowers, all well versed in the policy and programs of US DOT. The selection of SyDec as a consultant to the GTF was intentional. The firm had assisted with the first Interstate withdrawal in Boston, Massachusetts. The withdrawal in 1973 had attracted Goldschmidt's interest.

The GTF existed from May, 1973 through 1975, producing a major report which set the technical systems context for subsequent transportation planning. Composed of officials from the City of Portland, Counties of Multnomah, Washington, Clackamas and Clark, CRAG, ODOT, the Port of Portland, and Tri-Met, the GTF was charged with evaluating transit alternatives for the region and identifying possible corridors. The key question facing the GTF was whether transit was a viable alternative to freeway investment. Sixty-eight system configurations for the region were ultimately evaluated. These configurations were identified as alternatives to PVMATS and its highway emphasis. That study, initiated in 1959 but not formally adopted until 1971, assumed that transit ridership and operation would stabilize and, at worst, continue a trend of decline into the future. Five principal corridors were evaluated in terms of potential 1990 ridership, with estimates ranging from 20,000 to 70,000 trips per day. The GTF estimates for the Banfield corridor showed a potential demand of 59,700 riders for LRT and 71,100 for a busway. The report concluded that the choice of mode should be based on factors other than potential ridership, such as flexibility, adaptability and environmental effects. This analysis provided the initial technical justification for transit.

The report placed an emphasis on the use of existing transportation corridors for transit, rather than relying on new auto-oriented construction projects with a modest transit add-on. Perhaps more importantly, however, it set the stage for developing the technical and political decisionmaking capability for regional transit planning. The GTF report was a crucial element in the decision to withdraw the Mt. Hood Freeway. An alternative framework for trip mobility had to be found because, unlike other metropolitan areas with withdrawal initiatives, an on-the-shelf alternative project did not exist nor did the technical capability to produce one. The GTF

laid the groundwork for both a future project and the development of the organizational capability to plan and design it. By underscoring the potential case for transit and recommending the strengthening of CRAG's technical planning capability, the GTF provided local political officials with the first sound basis for redirecting transportation planning for the region.

This technical justification initiated a linked technical/political decisionmaking process that characterized the subsequent decisionmaking process. Further, it gave local officials positive direction in contrast to the anti-freeway orientation of the Mt. Hood Freeway controversy. Freeways were de-emphasized to the benefit of transit and a CBD focus.

The Federal Withdrawal Options in 1975

Employing the findings of the GTF, the metropolitan area approached the US DOT with a constructive basis for withdrawing the Mt. Hood. Under the withdrawal provisions then in effect (1975), the region had two options: 1) move the freeway to another location or, 2) invest the funds in a transit option (Section 103(e)2 and 103(e)3 of the Federal Aid Highway Act as amended in 1973). Moreover, the entitlement created by the withdrawal would be fixed at the cost of the withdrawn freeway. These provisions restricted the flexibility of the metropolitan area to a limited set of transportation options but did encourage the consideration of transit approaches.

54 new freeways and expressways were planned to serve the region's needs through 1990 at part of PVMATS

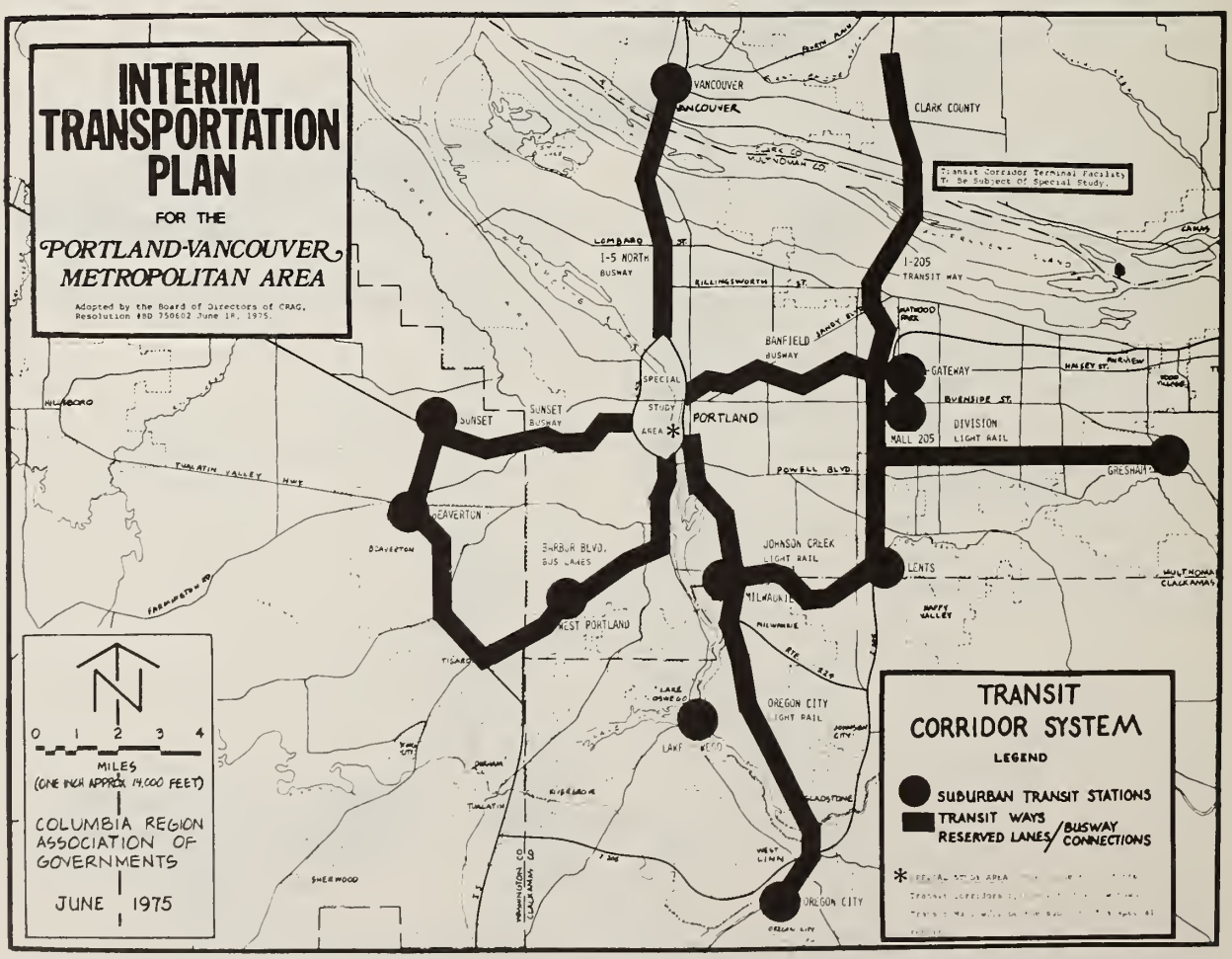
SOURCE: *Governor's Task Force*

Boston's success in withdrawing a major Interstate segment in 1973 provided an example that received national attention. During the legislative hearings of 1975 and 1976 a further refinement of the Interstate withdrawal process surfaced which eventually opened up additional options for all metropolitan areas. Portland, sensing the advantages of these proposed amendments, actively supported them. Working with Representative Bella Abzug of New York and the National League of Cities, with which Goldschmidt was actively involved, Portland hired a lobbyist to seek passage of the amendments. The passage of the Federal Aid Highway Act of 1976 with a new Section 103(e)4 provided substantial new discretion (highway projects were made eligible) and a favorable financial advantage (entitlements would escalate with the latest FHWA cost to complete estimates for the Interstate system). The critical nature of the 1976 Act is reflected by the fact that Portland asked US DOT to delay approval of the Mt. Hood withdrawal request after its submission.

The Local Decision to Request Withdrawal

In 1974, after the local decision to request withdrawal had been made through and by CRAG for the City of Portland and Multnomah County, the City of Portland actively sought the support of Governor McCall for a withdrawal request. McCall announced his intent to initiate the withdrawal in September, 1974. Yet, the formal request did not go forward until July, 1975. The delay was a product of three factors: a gubernatorial election in the Fall, 1974; a need to redraft the current regional transportation plan; and political opposition to the perceived loss of jobs if the withdrawal was successful.

In the first instance, McCall retired as Governor after two terms. His successor, Robert Straub, had not been party to the initial negotiations on the withdrawal proposal. His approval ultimately hinged on the support of metropolitan politicians who argued that the withdrawal made sense for the region and that there would be no loss of jobs to the state. As close political allies, most of the regional politicians had ready access to Straub, particularly Goldschmidt. Their support for the withdrawal was further aided by Straub's campaign experience in the metropolitan area which had made him aware of the local opposition to the Mt. Hood. His principal concern, however, was with the potential job losses created by the withdrawal since 1975 was a recession year.



The Interim Transportation Plan became the basis for a decade of planning for highway and transit investments

SOURCE: *Columbia Regional Association of Governments*

Despite intense opposition to the Mt. Hood, the potential loss of jobs and federal grant funds to the region were offsetting factors which mitigated against withdrawal. The withdrawal program was still relatively new and untried nationally. As such, there was substantial concern locally that the federal government might not meet its commitments or successfully negotiate a withdrawal. Local officials opposing the withdrawal used this as ammunition for their cause. Ultimately, the groundwork laid between Gordon, Clark, Jackson and Goldschmidt provided the key to a successful compromise.

The compromise was built around the need to have at least one project under construction in the region. The I-205 could reach that stage relatively quickly once local political opposition was dropped. Hence, the argument put to Straub was that given the design modifications to downsize I-205 (reflecting the elimination of the Mt. Hood), a transit guideway could be constructed in the leftover right-of-way. Hence, I-205 could proceed to construction providing some immediate jobs. This pacified the Association of Oregon Contractors which had locally opposed the freeway withdrawl. Exercising some faith that the metropolitan officials would ultimately come up with a replacement project, Straub agreed to support the withdrawal.

One other step needed negotiating before the request could be drafted—a revision in the Regional Transportation Plan. In learning of the withdrawal request, FHWA had requested the identification of a substitute project(s). In the absence of a completed planning process and wanting to maintain their options, local officials refused to comply with the request. Subsequently, FHWA considered withdrawal of CRAG's certification as the regional Metropolitan Planning Organization. The withdrawal of the Mt. Hood would have created a conflict with the existing Regional Transportation Plan. In response to a potential cutoff of federal transportation funds, CRAG developed an Interim Transportation Plan (ITP). The Plan indicated a busway as the preferred project for the Banfield corridor, as a replacement for the Mt. Hood, which the US DOT approved.

With the basis for a local agreement in place, Doug Wright, Transportation Planner for Portland, in conjunction with Leonard Bergstein of Straub's staff, wrote the withdrawal request. It is commonly acknowledged locally that Wright was a major force behind the withdrawal, based on his knowledge of the federal program and the support he enjoyed from Goldschmidt.

Changes at the Federal Level

Shortly after the request was made, however, the legislative events surrounding the proposed Federal Aid Highway Act of 1976 led the state and metropolitan area to defer US DOT approval. Approval could have been obtained in 1975 but the greater flexibility of the proposed withdrawal amendments was too attractive to forego. Hence, when DOT sought clarifying documentation and information, Oregon was slow to respond. This slowness was most evident in the region's dealing with FHWA. FHWA favored construction of the Mt. Hood Freeway. Playing off of this federal interest, the state and metropolitan area stalled for time. An important ally in this process was the Administrator of FHWA, former Nebraska Governor Tieman, who—after meeting in Washington with Jackson, Goldschmidt, Drummond and other local officials—agreed to delay processing of the request, pending the outcome of the legislative process. Just prior to the passage of the Federal Aid Highway Act of 1976 Portland's request was finally approved, grandfathered under the new legislative provisions.

Meanwhile, the region was proceeding from the ITP toward a regional transit philosophy. The plan identified the Banfield corridor as the region's top priority along with two other corridors, the Sunset on Portland's westside and Oregon City to the south. These corridors were identified in Straub's letter requesting withdrawal and were based on the analytical work of the GTF. ODOT was designated as lead agency for the Banfield and Sunset corridors since initial indications were that a busway would be the most likely configuration for transit improvements. Tri-Met was designated as the lead agency for the Oregon City corridor where light rail looked most likely, based on the 1973 PUC study. The City of Portland assumed responsibility for studies in the downtown predicated on its ongoing arterial streets policy, parking, and the consequences of any transit option for downtown circulation.

Summary

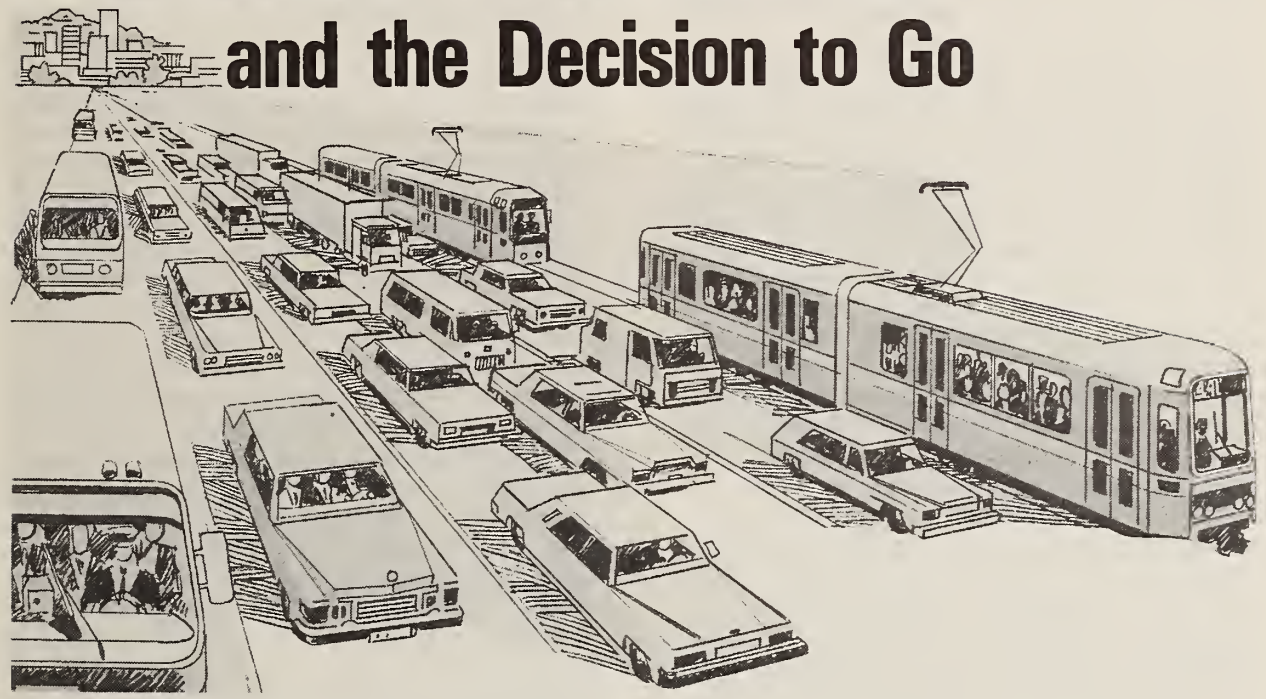
The period of 1973-75 closed on a metropolitan region which had successfully introduced and supported a move toward greater use of transit. The process, while politically charged, had been carried forward on the basis of intense cooperation and the active leadership of Goldschmidt. Support from the principal jurisdictional actors (CRAG, Portland, Multnomah County, Tri-Met and ODOT) had been obtained but the future alternatives were defined in vague and generalized ways. The ITP had specified preferred modes and corridors but the politicians had used this and other technical studies primarily to sell the general concept of transit and not a specific project, with the possible exception of County Commissioner Gordon. Pressure existed to get on with the construction of a major east-west project but the focus had been changed from a suburban emphasis to a regional growth orientation with a Portland CBD pivot. In general, the political context and interests were polarized not around specific projects but a need to move forward with a more effective public transportation system in the form of mass transit.

This transition was not without some ill feelings concerning the fate of the Mt. Hood Freeway, however. FHWA had indirectly opposed the withdrawal. Many individual supporters of the freeway were reluctant supporters of the withdrawal, or stridently opposed. The issue would continue as a major political problem in the region for years after. An example was the 1976 mayoral race where billboards appeared proclaiming, "If you had

The Mt. Hood Freeway was a major political issue for years
SOURCE: *Ivancie Political Campaign Literature*

taken the Mt. Hood Freeway you would be there by now." In 1978 Governor-elect Victor Atiyeh, a Mt. Hood supporter, agreed to the inclusion of funds in his budget for local matching money only after noting that the Mt. Hood had been killed and could not be resurrected. U.S. Representative Robert Duncan, also a Mt. Hood supporter, would provide a substantial roadblock to the state's appropriation of these matching funds based on his belief that Tri-Met should demonstrate its commitment to the project. These remnants of opposition surfaced at later points in the decisionmaking process to provide obstacles to expeditious progress or at a minimum potentially embarrassing moments, when progress was not being made to the satisfaction of some political actors.

Chapter 4
Identification of Alternatives and the Decision to Go



Some 30 different alternatives were considered for the Banfield corridor
SOURCE: *Tri-Met*

Background

The Mt. Hood withdrawal process set a context but did not establish more than a general commitment to transit. The ITP identified a number of options but there was little detailed technical information on the individual feasibility of these alternatives. Consequently, when the Banfield Corridor Project started in the Fall of 1975, it became necessary to re-examine the technical bases for the "systems" level alternatives suggested by the ITP. At the same time, however, the busway project preferred by the ITP was being refined and advanced as the principal project for the corridor. This project had substantial political support because it was perceived as readily implementable and would satisfy the demand for a construction project generating the jobs and federal grants that many individuals felt would be lost with the demise of the Mt. Hood. Hence, the alternatives analysis phase of the project witnessed substantial overlap between systems and project level analysis, generating substantial confusion at times. Sorting out this confusion occupied much of the planning effort in the ensuing years. Unlike major highway projects with a smoother planning process, honed and refined through years of experience, the planning process for the Banfield seems, in retrospect, to have been semi-organized and chaotic. This chaos reflected the lack of an agreed-upon and routinized institutional and technical process for accomplishing the tasks at hand. The situation was made worse by the lack of any substantial regional expertise with long-range, large-scale capital projects for transit. There was no track record or background to call upon in the region. Just as importantly, major political decisionmakers were not content to wait out the sequence of systems and project-level planning.

Initiating the Draft Environmental Impact Statement Process

As the official lead agency for the Banfield corridor, ODOT initiated the DEIS process in the Fall of 1975. The funds for this effort were drawn from the Mt. Hood Interstate transfer monies. While the scope of the project remained to be defined, $60 million had been assigned to the corridor to start work and fund construction of a final project. In starting the DEIS process, ODOT adopted the FHWA approach to planning. Initially four major alternatives were examined: a separated busway, two schemes utilizing high-occupancy-vehicle lanes on the freeway and light rail transit. These alternatives were to be refined and evaluated on the basis of social, environ-

mental and engineering studies performed or sponsored by ODOT. To some extent, the outcome of the assessment process was preordained by ODOT's selection as lead agency. The preferred approach of the ITP was a busway which ODOT would build, not the transit agency. Further, the widening and straightening of the Banfield Freeway was a "given," extending from the deal on I-205 arranged by Jackson, Goldschmidt and Clark.

ODOT initiated the planning process under the Oregon Action Plan, a citizen participation process created under federal regulation. The process had further significance in that the political uproar surrounding the Mt. Hood had affected the political thinking in the region. No one wanted to incur citizen unrest with a replacement project. Hence, ODOT formed a Banfield Citizens' Advisory Committee (CAC). This committee was charged with reviewing analytical products as they emerged and providing citizen input to the decisionmaking process. It also served a legitimizing function, which it was hoped would forestall any future political unrest. The CAC began its work in October, 1975 and by the end of the DEIS process had grown to an active membership of over 120 people.

Initial Technical Efforts

It is important to understand the chronological context of the Banfield technical analysis. The work was initiated in mid-1975 in an era of little familiarity with the LRT systems in the United States. The eight old rail cities were nationally perceived as the only cities where rail systems were viable alternatives to bus-based service. San Francisco's Bay Area Rapid Transit (BART) system, the only post-World War II rail start in the nation, was in the early stages of operation and had generated some negative imagery for rail systems. Only Canada offered an existing system of LRT on the North American continent. From a technical perspective, the modeling process for transit was still heavily linked to highway-demand models and lacked technical sensitivity to the unique dimensions of LRT. In the metropolitan region, if there was a bias to a particular project, it was to a busway between the Portland CBD and Gateway Shopping Center. This project, based on bus service, received higher consideration because of its implementability (ODOT could build it quickly) and because of its inherent compatability with highway modal split models. LRT was viewed as a futuristic rather than a pragmatic alternative.

From a broader perspective, the entire transportation planning process was more favorably geared to rubber-tire-based systems. UMTA and FHWA operated separate categorical grant programs with discrete planning requirements. As will be discussed later, UMTA seemed to approach the evaluation of alternatives more cautiously, seemingly requiring more approvals before each stage of the analysis could be initiated. More importantly, joint projects were beyond the experience of UMTA and FHWA. Until the issuance of the interim metropolitan planning regulations in 1976, the two agencies lacked a common process for the kind of transportation planning Portland was developing. As a result, the Portland analytical approach from its very beginnings did not "fit" federal procedures and processes well. As an example, the UMTA process of Phase I Alternatives Analysis required, at the time, corridor-level evaluations of systems alternatives. The metropolitan area believed that the initial work performed by the Governor's Task Force and DeLeuw Cather satisfied this requirement. Hence, ODOT, which had the lead for the complete DEIS in 1975, was embarking on what would now be called Phase II Alternatives Analysis, focusing on project-level evaluations and comparisons. Indeed, ODOT began its technical work with the assumption that some project would be built in the Banfield Corridor. At the same time, it was also mixing systems-level with project-level analyses to account for shifting lists of alternatives produced by federal involvement and changing local-level priorities. In a nutshell, the technical analysis for the Banfield approximated the pure model of alternatives analysis at best in the abstract rather than the applied application of federal procedures. For a discussion of the technical modeling process see Appendix B.

The list of alternative project configurations changed substantially over time. Partially attributable to the character of the overall process (atypical), the input/ demands of local and federal agencies/officials principally affected the choice and specifications of viable alternatives. Over thirty total discrete and combined options were assessed during the process, including some suggested by UMTA during the preparation of a Preferred Alternatives Report. The options reported in the DEIS are described in Appendix C. While this list covers the majority of alternatives evaluated, it neglects others suggested during the review of the final document by UMTA. The source of these alternatives and their exact specifications, while important, is not as significant as the environment and context within which they were generated. FHWA and UMTA input to the identification of (highway/ transit) options framed the general context for technical analysis. In other words, since the Banfield was neither a transit project nor highway project but both, some alternatives were treated by local officials as "impossible" by virtue of the corridor location and political context of the decisionmaking process. Moreover, the lack of FHWA/UMTA experience with a joint process seemed to create confusion for local officials. As detailed later, this shifted responsibility for reconciling procedures and options to ODOT and Tri-Met, both of which faced other political and technical limitations. These conditions significantly affected the entire process of alternatives analysis in that there was little prior agreement on alternatives and analytical processes. Thus, the entire effort, at times, appeared to be "played-by-ear."

Appendix Two of the Banfield DEIS provides a chronological history of the alternatives considered for the corridor up to February, 1978. The discussion in Appendix C outlines the evolution of these alternatives.

The list of alternatives shows an evolving pattern of thinking concerning appropriate alternatives and the role

of transit. Principal responsibility for refining and specifying alternatives fell to CRAG which really took direction from Portland, ODOT and Multnomah County. It is clear, however, that a consistent theme of transit service and highway improvements ran throughout the process. Addition of low-cost or no-build alternatives was antithetical to local interests which had built their decision process around some form of substantial transportation improvement for the region. This commitment to build something created federal/local tensions during the review of the DEIS and subsequent Preferred Alternatives Reports. In the latter case, UMTA suggested a number of specific alternatives for Tri-Met to evaluate, most notably greater use of Transportation Systems Management (TSM) options such as freeway ramp metering, use of articulated buses and use of existing rail trackage for the LRT.

Initial Working Relationships Between ODOT and Local Entities

To accommodate the metropolitan region and the County in particular, ODOT opened a Metropolitan Division office (1976) in Portland, directed by Robert Bothman. Bothman, a highway engineer, had been involved in the withdrawal efforts and was intimately familiar with the metropolitan area and had access to Glenn Jackson. He became a critical actor in the outcome of the planning process. The opening of the Division office under his leadership initiated an incremental process of developing the technical capability in the region to manage the development of transit options.

At the same time, ODOT was undergoing a major reorientation in its Salem headquarters. Still primarily a highway agency, it was beginning to move more effectively toward a comprehensive transportation philosophy. To facilitate this movement, the director of the agency was replaced by Governor Straub. The new director, Robert Burco, was a transportation consultant from California. His principal mission was to galvanize the different organizational components of ODOT into a comprehensive whole. These efforts provided greater leeway to the Metropolitan Division in terms of reaching workable accommodations with local political leaders. Jackson, however, had not participated in the decision to appoint Burco.

Behind the scenes a broader political effort was taking place. For many years, Glenn Jackson had been "Mr. Highways" in Oregon. As Chairman of the Oregon Transportation Commission, he had successfully guided the development of Oregon's highway system. Moreover, he was vitally interested in continued transportation investment in the metropolitan area. His interest in highway construction remained unabated. However, the agreement on I-205, and the fact that ODOT had the lead role for the Banfield, garnered his support for a transit project. Based on this foundation, Jackson was later able to ensure the widening of the Banfield.

Subsequent to reorganization of the Metropolitan Division, ODOT refined its modeling procedures in concert with Multnomah County, CRAG, and Portland. While the process was not smooth in all respects, it was facilitated by a strong and effective personal relationship between Portland's Chief Transportation Planner Doug Wright and Bothman. Between them, they led the technical planning process.

Shifting Local Priorities

Early in 1976, the ability of the region to maintain parallel planning efforts in all three corridors began to degenerate. A decision was made in September, 1976 to designate the Banfield corridor as first priority. A variety of factors influenced this decision:

- The apparent incapacity of the region to carry all three major corridors because of insufficient technical staff and ability;
- An implicit political commitment to the eastside of Portland because it had "lost" the Mt. Hood Freeway;
- Highway improvements were necessary in the Banfield to link to the opening of the I-205 freeway;
- The political pressure to replace the jobs lost from the Mt. Hood withdrawal required politically expeditious progress on a replacement project;
- ODOT's proven track record in construction and lead role on the Banfield made it a "natural" in terms of developing and building a project;
- The initial work done by Tri-Met on the Oregon City and by ODOT on the Sunset corridors indicated that these projects were unlikely in the near term.

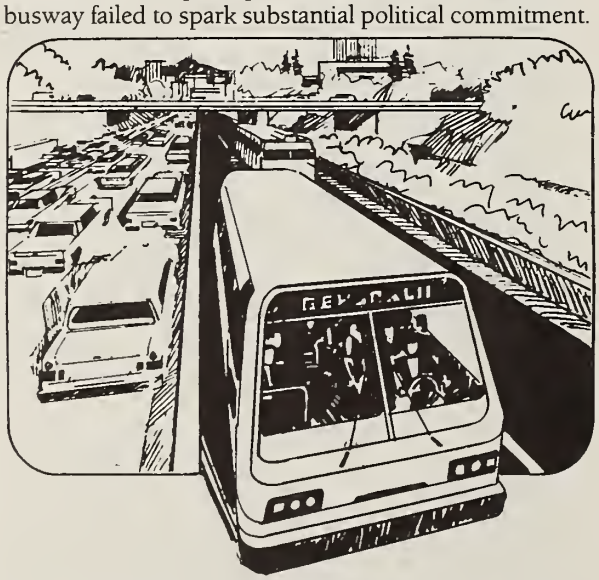
Consequently, ODOT and the region felt it necessary to initiate a project in the Banfield corridor as quickly as possible. Of the projects under consideration, the most feasible appeared to be the busway.

The feasibility of the busway had emerged early in 1976 based on prior studies and the ODOT modeling efforts. ODOT's systems analysis focused on a mix of some 30 alternative combinations of the four major options identified above plus a no-build option. From a cost effectiveness perspective, the busway appeared to have the greatest promise of any of the capital alternatives. Further, it would reduce automobile usage, pollution and energy consumption. It was flexible and adaptable in terms of changing ridership patterns and could link effectively to the rest of the bus system in the region.

The other options appeared less acceptable for a number of reasons. The High Occupancy Vehicle (HOV) approach, while mixing carpool capability with buses, was perceived as too flexible in the face of potential motorist demand for greater single-passenger auto usage. Transit advocates argued that the HOV option was an eight-lane freeway with only a policy decision by the Oregon Transportation Commission necessary to go from HOV to freeway. Costs were attractive and minimal compared to other alternatives. But, there was skepticism about the ability to attract enough ridership to high occupancy vehicles. Most importantly, without some form of high-capacity transit, ODOT's models indicated that the capacity of the corridor would be exceeded by 1990.

LRT, based on the highway models used by ODOT, had fared badly in early analyses. Initially modeled at the same length as the busway (only as far as the Gateway Shopping Center on Portland's east boundary), it would not have attracted sufficient ridership to make it cost effective in comparison to the busway. Indeed, when the modeling efforts failed to substantiate it, it was quietly dropped by CRAG's technical committee.

Hence, as of May, 1976, the most viable local project, politically and technically, was the busway. Yet, it was not without its limitations. Portland completed construction of a downtown transit mall in 1978 designed for a bus capacity during the peak hour of approximately 225 standard buses. ODOT's modeling indicated that with the busway it was possible that a peak-hour load of more than 525 buses would hit the Mall. In addition, the perceived air pollution and noise impacts would have detrimentally affected the aesthetic values the Mall was intended to serve. From a political perspective, the busway lacked the "drawing power" of a more sophisticated technology or freeway. Indeed, in the view of Steve McCarthy, then Tri-Met Assistant General Manager, the busway would have had substantial political liabilities. Auto users perceiving a busway that was substantially "empty" most of the time would rightfully complain that it was a waste of resources and only produced more congestion by limiting freeway lanes. Requiring significant construction efforts, it was perceived as unlikely to generate the support often associated with a major freeway which has perceptible benefits for its principal clientele. While viable, the busway failed to spark substantial political commitment.



View of separated busway on north side of the Banfield Freeway.
SOURCE: *Tri-Met*

Additional opposition to the busway came from three different sources. Multnomah County, an early advocate of LRT, felt that the LRT was being unjustly excluded. In response, the entire board threatened to sue the state and block the DEIS process unless the LRT was added back as an option. Additionally, STOP, originally formed in opposition to the Mt. Hood Freeway, became a vocal citizens group in support of transit. Merging with another group, Citizens for the Immediate Adoption of Trolleys (CIAT), a new organization, Citizens for Better Transit (CBT) was formed. Composed of a limited number of individuals, no more than a dozen according to its director Ray Polani, this group believed that a more advanced form of technology held greater promise for the corridor. With membership on ODOT's citizen committee, they actively lobbied CRAG, Tri-Met and ODOT to reinclude the LRT option. Finally, Tri-Met—a relatively passive member of the decisionmaking process to that point—decided it needed to adopt a more aggressive role. Realizing it would have to operate whatever system was finally built, it articulated a position based on cost-effective operating systems. Perceiving an extension of the bus system to be counterproductive from a labor perspective, Tri-Met set out aggressively to build a case for LRT, outside the DEIS process. Using a sketch planning process and the services of Wilbur Smith and Associates, Tri-Met expended approximately $500,000 on the preparation of a 1990 plan for the organization. Looking beyond the issue of an appropriate system for the corridor, the agency also assessed the qualities of an effective regional transportation system and operating agency in the context of 1990. Concluding that a greater use of technology as a substitute for labor costs was necessary, its efforts produced the first real articulation of operating costs as a critical decision criterion. Moreover, Tri-Met chose to do this publicly to create support for its LRT objectives.

During the course of the Tri-Met study and in concert with Multnomah County's threatened lawsuit, the staffs of the respective agencies lobbied hard to convince Portland and ODOT to reinstate the LRT. Tri-Met's arguments were principally economic, based on the operating cost advantages of LRT. Multnomah County's position was based on the need to develop a transit system that could effectively serve the vast majority of East County residents and meet land-use goals. Tri-Met was laboring at a particular disadvantage since it was generally perceived by all other jurisdictions as incapable of effectively operating and constructing an LRT system. Therefore, it was not only arguing a technical case but also its organizational effectiveness.

In the context of the political and technical limitations of the busway articulated above and the fear that a lawsuit would drag the process out even further, Tri-Met's operating cost argument convinced the other participants—and the most critical decisionmaker, the Governor—to put LRT back into the process. In making its case, Tri-Met had shown, through its consultants, that the LRT could be cost-effective in construction/ridership terms if the system were extended beyond Gateway to Gresham, an additional nine miles of trackage. Tri-Met not only successfully reintroduced the LRT but was also designated lead agency for that portion of the Banfield DEIS process.

Integrating the Roles of FHWA and UMTA

To the point that the busway and ODOT's role were of primary importance to the Banfield process, the principal federal agency involved was the FHWA. Once a fixed-rail alternative began to emerge as a serious alternative, the UMTA entered the picture. UMTA's participation changed the intergovernmental decision process. Metropolitan transportation planning requires a comprehensive, coordinated and continuous regional effort. However, both agencies while working within this general federal rubric had developed distinctly different transportation planning procedures. Since they administered separate grant-in-aid programs which generally funded unique and discrete projects serving different state and local constituencies, they focused on distinct organizational missions. From the Portland perspective, however, this added substantial confusion and frustration to the planning process.

The FHWA and UMTA processes at that point (they have since been substantially streamlined and modified) were radically different. The FHWA process started with reconnaissance studies and the A-95 review process and then moved directly into preliminary engineering of which the DEIS was the culmination. For UMTA, Phase I Alternatives Analysis set the context for preparing a DEIS identifying demand, cost-effective methodologies, priority corridors and a small set of promising alternatives. This was followed by UMTA approval which then set the stage for Phase II Alternatives Analysis, the DEIS. Subsequent to UMTA approval, an FEIS would be prepared and concomitantly an application for a Preliminary Engineering (PE) Grant. With the approval of the FEIS, a PE grant would be approved, followed by performance of PE work and the development of a financing scheme. UMTA had more approval steps than FHWA which made integrating the processes difficult. Since the Banfield project was clearly a joint highway/transit project in the minds of the state and metropolitan officials, they had to integrate the two federal processes. More importantly, the region under UMTA's procedures would not get PE funds to support technical analyses until much later in the process.

From the perspective of the Portland technical and political officials, they had to reach some kind of accommodation with the federal agencies. Further, in dealing with the two agencies they strongly felt that they were not getting much cooperation. FHWA was perceived as having a streamlined process and more professional credibility within the region. UMTA was perceived more negatively for its more complex process and its less effective administrative procedures.

After a number of technical-level discussions, Tri-Met as lead Banfield transit agency decided to deal with the issue directly at the executive level in Washington. Meeting with the FHWA and UMTA Washington staffs, Tri-Met officials proceeded to explain the basis of their problem by demonstrating the lack of consistency and congruency between the two agencies. Working from what is locally called the "Bill Hall Chart," Hall, Tri-Met's Planning Director, McCarthy, Wright and Bothman lobbied the agencies for a compromise process. UMTA finally decided on a modification of the FHWA process which meant that the region could continue the technical process as designed to date and not have to retrace steps to conform with UMTA's policies.

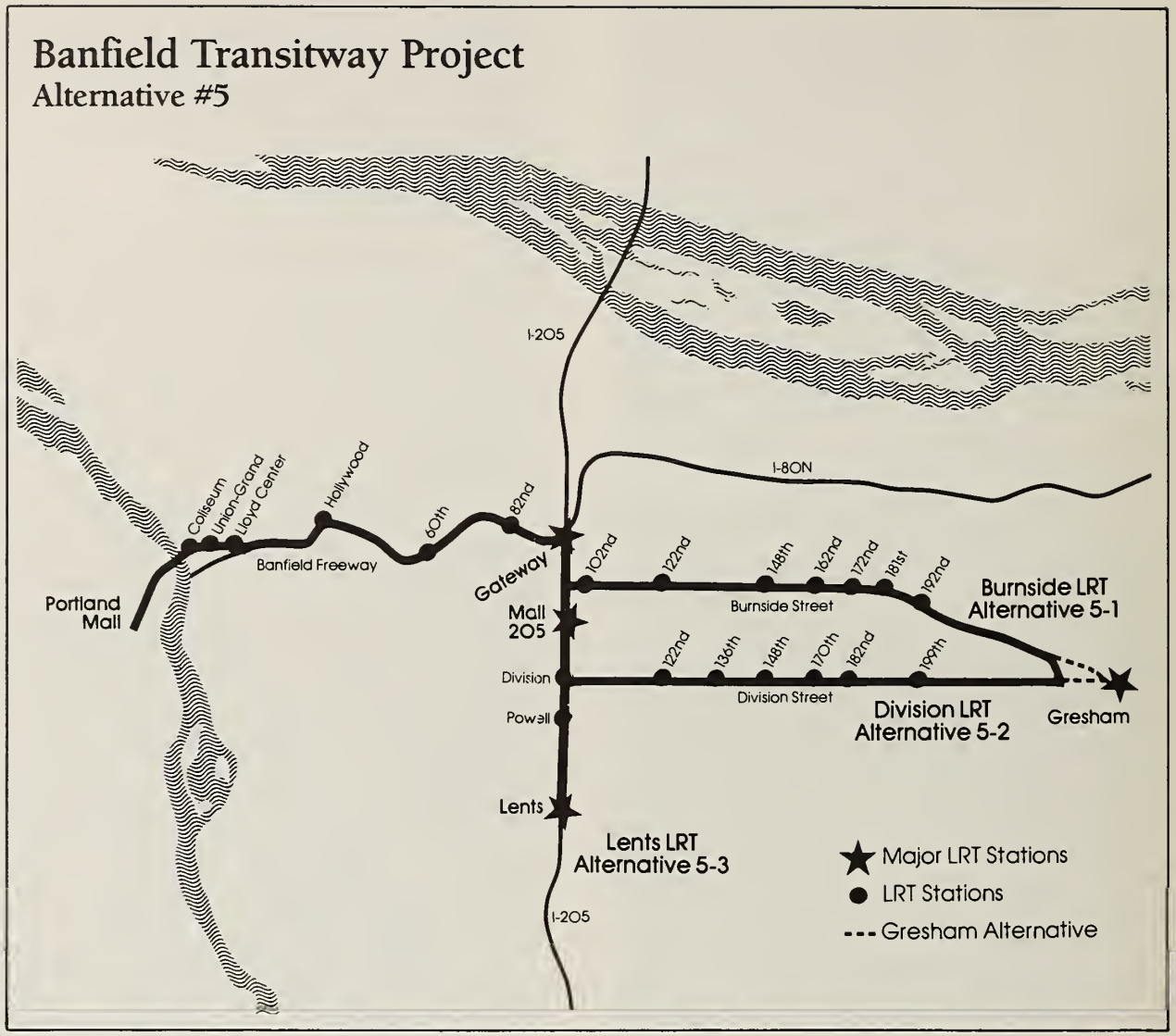
Preparing the DEIS

Once the planning process had been agreed to, Tri-Met and ODOT proceeded toward preparation of the DEIS. However, UMTA, in its review of the technical work, suggested that Tri-Met include two additional LRT alternatives in its analysis. One of these suggested a Division Street/Burnside alignment to Gresham. The other had the LRT follow I-205 to Lents. While Tri-Met was convinced from its analyses that neither alternative was viable, it complied with UMTA directives in order to complete the process with minimal difficulty.

Evaluating the LRT alternative meant slowing down the whole process to allow Tri-Met to catch up. ODOT had already made substantial progress in completing its portion of the DEIS/Alternatives Analysis process. Under the pressure to keep the project moving, produced by metropolitan and state political figures, ODOT imposed stringent expectations on Tri-Met. The Wilbur Smith Study, while providing a systems-level justification for LRT, had not refined the analysis to a level commensurate with the demands of the DEIS. Hence, Tri-Met working with another set of consultants had to catch up to ODOT's position and produce technical analyses which it had not previously accomplished for three alternatives. Further, as is more completely discussed in the next chapter, the organization was undergoing major staff changes and gearing up to manage the technical analyses required.

Meanwhile, ODOT was proceeding with the Citizen Advisory process to set the stage for the final DEIS hearing. This was a massive citizen effort centered around the Citizen Advisory Committee (CAC). Overlapping this process was a related Tri-Met citizen process centering on the *1990 Report*. For that report, Tri-Met held over 100 meetings and briefings with neighborhood groups, political jurisdictions and other citizen bodies, starting in September, 1976 and ending in June, 1977. This entire effort took place outside the framework of the DEIS to politically justify reinserting the LRT as a DEIS alternative. With the reintroduction of the LRT alternative, the CAC process overseen by ODOT was altered to include a separate citizen review of the LRT alternatives under Tri-Met. The citizen review process culminated in March, 1978 with the CAC recommendation to support LRT on Burnside as the preferred alternative.

In conducting the citizen review process both ODOT and Tri-Met attempted to maintain an unbiased position on the preferred alternatives. Yet, they were engaged in a significant interorganizational battle. ODOT had "lost" the Mt. Hood Freeway and was seeking to maintain its pre-eminence in transportation. Tri-Met had "won" on LRT and was attempting to establish itself as a major



Three separate Light Rail alternatives developed for the DEIS
SOURCE: *Tri-Met*

transportation entity. The result was a mutual lack of trust. At the same time, however, both agencies, particularly Tri-Met, recognized the need (principally resulting from Portland's advocacy) for a major new transportation program in the metropolitan area. Hence, they attempted to make the process as visible as possible and to articulate the options clearly and effectively despite their mutual antagonism. Aware of the citizen problems surrounding the Mt. Hood Freeway, both agencies wanted a public process which would legitimize the final decision. While substantially successful in their efforts, there were still points where citizen opposition, outside the CAC process, surfaced. Burnside Street residents most directly impacted by the LRT aid, previous Mt. Hood Freeway supporters, and many east county residents felt that the emphasis should be on highway improvements. While never very well organized, supporters of this opposition movement did collect over 10,000 signatures on a petition to oppose the LRT. This effort had little major impact on the final decision, however.

The Local Process of Selecting the Preferred Alternative

At the conclusion of the DEIS process, the ODOT and Tri-Met staff perceived a need to structure the formal, required hearings process and decisionmaking by affected jurisdictions. This was carefully orchestrated by Tri-Met to avoid last-minute holdouts by any of the local governments. Hence, after the CAC recommended approval of LRT as the preferred alternative, the Tri-Met staff prepared a staff recommendation in August, 1978, for the Tri-Met Board. This recommendation had the support of Tri-Met's newly appointed General Manager, Peter Cass, who upon assuming his position had requested a careful

staff reappraisal of the viability of the LRT project. Satisfied that it made sense for Tri-Met and the region, Cass wanted to make sure that there were no last-minute cracks in the local political and technical consensus.

The CAC recommendation was presented in April, 1978 at the DEIS hearing. The Tri-Met staff recommendation followed in August. During the Fall, the Tri-Met Board approved the selected Burnside LRT, followed by Multnomah County, Gresham, Portland, CRAG, and the Oregon Transportation Commission. This order of review and approval was very carefully structured. Starting with the agencies most directly benefited by the final project, successive approvals were intended to create a snowball effect toward Portland acceptance. This was facilitated by prior work with affected jurisdictions to build a political consensus involving other projects funded from Interstate transfer monies. Hence, each of the participant jurisdictions had a substantial interest in supporting the overall process as well as benefiting from a specific project. Further, the most potentially difficult issues, the source of funds for the required local matching monies and the downtown Portland argument were left to be tackled after the basic modal commitments were made.

Federal Approval of the DEIS

Once approved in Oregon, federal approval of the DEIS was required. Again the process was complicated by the involvement of two federal agencies. Metropolitan officials perceived confusion on the part of UMTA and FHWA concerning the DEIS. Some of this confusion undoubtedly reflected the mixed roles of UMTA and FHWA. FHWA had the lead for the overall project but the preferred alternative reflected a transit emphasis, the LRT. Further, the preferred alternative was mixed-mode, highway improvements and transit, a unique project for UMTA and FHWA to deal with. Finally, a review of UMTA's chronological memoranda files indicated that there was some internal difference of opinion concerning the approvability of the project.

Alternatives to Alternatives Analysis

While the DEIS was signed by UMTA, FHWA and the Office of the Secretary of Transportation on February 13, 1978, this only opened a new phase in the Banfield approval process. Intervening between the DEIS and FEIS were several decisions by UMTA requiring additional analysis by Tri-Met and ODOT. Prior to approving the DEIS, UMTA had persistently questioned the ridership estimates and trip load factors presented by Tri-Met in its corridor modeling. UMTA was concerned by the location of the Banfield corridor in relation to the bulk of the eastside population which was south of the proposed LRT line. Local political and technical officials were aware that the Banfield corridor was not ideally located to serve the bulk of the East County population. Yet, the most logical corridor in UMTA's view, US 26/Powell Boulevard, had been the proposed alignment for the Mt. Hood Freeway. To construct a major project in this corridor after having justified a freeway withdrawal was politically impossible locally and inconsistent with Portland's Arterial Streets Policy. Moreover, the commitment to an east-west freeway improvement for the Banfield would have been more costly to construct separately from the LRT. Thus, the systems planning process had emphasized the technical feasibility of a joint project in the Banfield corridor.

UMTA's concern over ridership estimates continued through the technical review even after the DEIS was approved. This concern culminated in a letter to ODOT and Tri-Met on June 8, 1978 requesting comments on the following:

- A TSM alternative which included both arterial and freeway improvements, combining the best features of the low-cost improvements alternative, freeway ramp metering and HOV bypass lanes with provision for bus transfers along the Banfield Freeway;
- A modified busway alternative minimizing capital investments in the corridor, specifically consisting of a separated reversible busway adjacent to the existing freeway with access and egress to major arterials;
- Inclusion of Tri-Met's findings on the use of articulated buses in the analysis of alternatives;
- Clarification of the apparent inconsistency of standing policy for bus and light rail alternatives;
- Consideration of the marginal costs and effects of all alternatives in the presentation of the analysis;
- An additional reassessment of the travel forecasting procedures first raised by UMTA in November, 1977;
- A discussion of the entire bus system for the region, excluding the Banfield corridor, describing the system and its costs;
- Additional supporting information for the conclusion that some alternatives offered more positive economic development and land-use impacts than others, including an assesssment of joint development opportunities;
- An explanation of the reasons why joint LRT operation with the existing Union Pacific Rail facilities was not considered.

The ODOT/Tri-Met responses to these questions were as follows:

- While ramp metering could improve peak-hour traffic conditions, this approach would perpetuate the use of substandard lane widths and shoulders on the freeway. A remedy for these deficiencies would increase capital costs substantially while transit operations would remain similar to the HOV alternative. Bus transfer stations would require additional cost along the Banfield and I-205 freeways. For these reasons, ramp metering alone was not considered although it would be studied for future applications;
- A reversible busway similar to the one suggested had been considered as an alternative, but was dropped in 1976 after analyses indicated minimal capital cost savings and significant operational problems;
- In the final analysis, the opportunity for efficiency ap-

pears to be in selected application of articulated buses throughout the Tri-Met service network. This would compensate for the higher anticipated operating costs of articulated buses, placing them where ridership demand justifies the cost savings;

- Depending upon changes in operating procedures or in type of vehicle specified, the peak loads of both buses and LRT could change by up to about 14 percent of the assumed values (50 passengers per bus and 183 per LRT vehicle). Even under worst case situations, however, (bus down 14 percent of assumed values and LRT down by the same) LRT would still be approximately 7 percent cheaper to operate than a comparable bus system;
- While Tri-Met believed that marginal costs were useful for comparing alternatives which generate different patronage levels, it also felt that it was necessary to consider the cost effectiveness of the alternatives in coping with similar patronage levels. From this perspective, the LRT was considerably more cost effective in terms of operating cost and total annual cost per passenger than other build alternatives. Hence, the Banfield LRT would be the most cost effective of all alternatives in transporting ridership in the range of 19.2 million passengers per year;
- In June, 1978 Tri-Met had addressed the travel demand forecasts in a letter to UMTA which had been accepted as substantial justification for demand forecasts. Two other issues, continued employment growth in downtown and greater attractiveness of bus ridership on the busway, were also addressed by Tri-Met. It argued that the downtown projections were, if anything, understated. Further, the advantage of LRT over less transferring and higher frequency bus service would be in greater schedule reliability, more comfortable ride and shorter terminal-to-terminal travel time. In the final analysis, the advantage of LRT was perceived to be in its extension to Gresham;
- Initial work for the Banfield assumed that service improvements would occur throughout the Tri-Met system. An extensive bus network was, accordingly, devised for the Banfield and other corridors. This network of feeder and local buses was described in another report;
- The LRT alignment to Gresham would penetrate the areas of greatest development potential on the eastside. Other options would produce stations only on Portland's eastside where development patterns were more stable and less prone to intensification;
- The feasibility of joint rail track use was considered and discarded as impractical for reasons of track incompatibility, lack of track capacity, electrification incompatibility, speed, train protection and station clearance.

These responses were first communicated to UMTA in June, 1978 and further elaborated in May, 1979 in a *Preferred Alternatives Report*. This report addressed the desirability of the preferred LRT option as requested by UMTA in December, 1978, after repeated technical exchanges between its staff and Tri-Met/ODOT had produced no resolution of the issues. ODOT and Tri-Met reluctantly produced the report, replicating in effect the work and further analyses already provided to UTMA. Indeed, local officials perceived the interim between approval of the DEIS and permission to proceed with the FEIS as a "footdragging" effort on the part of UMTA to avoid giving final project approval. During this period, UMTA was facing accelerating demands for capital construction funds without a complementary growth in appropriations. In the absence of definitive warrants to assess the feasibility of capital projects and its generally poor administrative reputation, local officials felt that UMTA was "stonewalling" to avoid approving the project.

Since federal administrative personnel were not interviewed for this research, it is not possible to directly confirm this local perception. However, it is clear that some of UMTA's hesitancy in accepting the DEIS findings can be traced to the process that ODOT and Tri-Met used to carry out joint planning for the corridor. Much of what passed for UTMA footdragging may have been a reflection of both the "abnormality" of the alternatives analysis process and their intermittent involvement as a "secondary" agency in the local planning effort.

In the first instance, the alternatives analysis requirements normally employed by UMTA would have required that systems-level analysis proceed first. Portland actually accomplished its systems-level work, to some extent, prior to the initiation of the DEIS in the context of the GTF Report, a DeLeuw Cather study and other technical studies completed prior to the Mt. Hood withdrawal. Subsequently, ODOT and Tri-Met intermittently mixed systems-level with project-level analyses to produce the DEIS. Concomitantly, the political commitments to the improvement of the east-west freeway and the development of a major transit improvement in east Multnomah County were made. These decisions established the systems-level alternatives before the completion of the DEIS and laid substantial groundwork for an emerging project. There seemed little question in the minds of most Portland officials that some form of major capital investment would be made in the corridor.

On the second point, with ODOT as the lead agency for the corridor and Tri-Met in second place, the acceptance of the FHWA process as the main planning procedure left UMTA in a second fiddle position. It was left out of the direct communications process and problem-solving efforts. Consequently, the agency was always playing catch-up with the first-line participants at decision points.

Two Phases of Preliminary Engineering

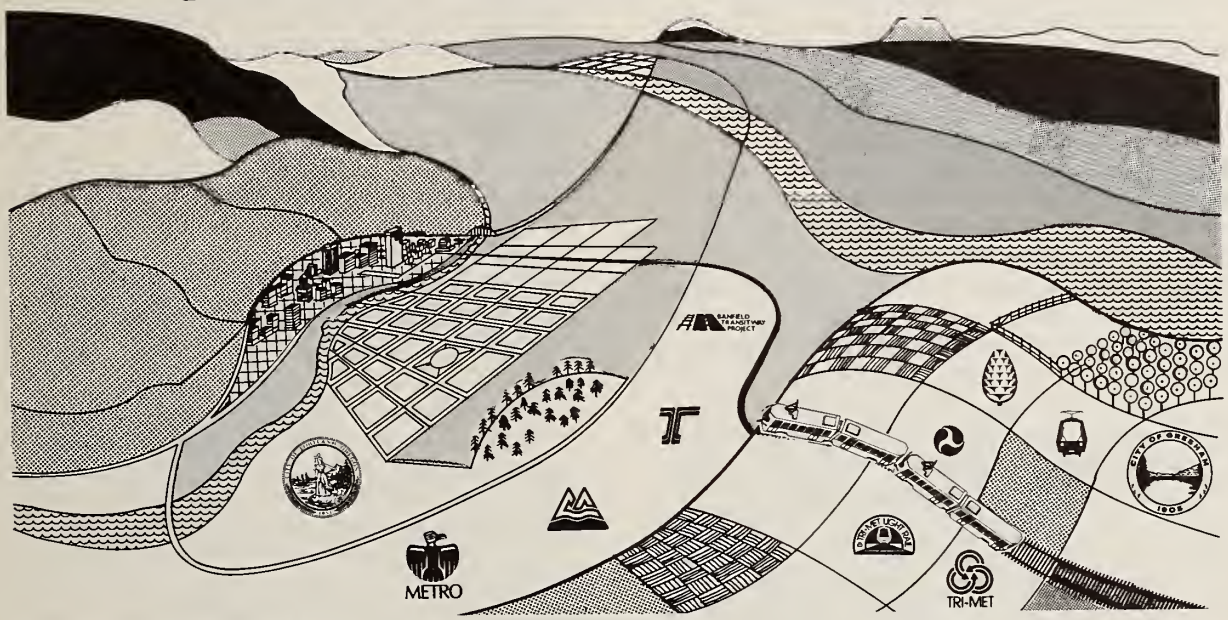
In July, 1978 approval to initiate Phase I of Preliminary Engineering was granted by UMTA. A consultant was hired to flesh out the initial dimensions for the project and establish the veracity of the design and cost estimates identified by the DEIS. Phase I ended in June, 1979. Subsequent approval to proceed with Phase II was not

forthcoming until October, 1979. The winding down and then gearing up between the two phases of PE produced a delay of several months. The separation of PE from the DEIS led to the dilution of both efforts in the view of local officials.

Preparing the Final Environmental Impact Statement

Subsequent to the approval of the Preferred Alternatives Report, permission to proceed with the FEIS was granted by UMTA. The FEIS, concentrating on the LRT/Banfield widening project, was initiated in September, 1979 and completed in June, 1980. FHWA and UMTA signed the FEIS in July, 1980. After the preparation of the FEIS, Tri-Met held twenty-three neighborhood workshops to fine tune the design work in terms of routing and community impacts. Final US DOT approval of the Banfield project was granted in September, 1980. This final approval brought an end to a five-year process of technical planning and political consensus building. Remaining to be completed was the financing of the project at the federal and local levels and authorization to proceed with construction.

Chapter 5
The Changing Political Infrastructure of Metropolitan Decisionmaking



SOURCE: *Tri-Met* *Norman Gollub*

As indicated earlier, the decision to proceed with the LRT was much more than a technical review and analysis process. While this is not unique to Portland, the context of the Portland case required a number of significant political changes before the final decision emerged. Most notable among these changes was a major restructuring of political assumptions and institutions regarding transportation modes and corridors for the metropolitan areas. The decision to support the Banfield project is, thus, indistinguishable from the shift to transit over freeways and the assumptions and plans for regional growth and development. Most importantly, however, the process and institutional capacity to make such transitions evolved in a fashion which not only facilitated the decisionmaking but left in place a major new political infrastructure which would serve the region in the future. Much of this change was made possible by the emergence of a new regional political elite typified by Mayor Goldschmidt and County Commission Chair Don Clark.

Developing the Technical and Political Decision Capacity

As noted earlier the Governor's Task Force had set the stage for the development of the technical and political capacity to restructure the transportation system of the metropolitan area. The principal institutional element of this effort was the restructuring of CRAG by the Washington and Oregon legislatures. Creating a mandatory Council of Governments produced a dues structure which could support a more effective technical staff. While it took time for this technical capability to develop at CRAG, interim support was provided by the City of Portland and Multnomah County through the efforts of Neil Goldschmidt and Mel Gordon.

Key Actors

Goldschmidt, in particular, was critical to the development of the technical capability in the metropolitan area. While Multnomah County contributed staff expertise to the planning and development process, it was Goldschmidt who recruited the core technical staff that ultimately drove the technical aspects of the process. Doug Wright, Don Mazzioti, Ernie Bonner and Ernie Munch at specific times played critical roles in the development of the technical capability. More importantly, it was Wright's understanding of the federal

withdrawal process which gave Portland the critical leverage in managing the switch from freeways to transit. With the 1973 passage of the State Land Use Planning Law, Portland was among the first jurisdictions in the metropolitan area to staff up to handle this new mission. As a result, the City was in a position to begin the articulation early in the process of the potential linkage between transportation investments and development, an argument which later became central to LRT support in East Multnomah County and in downtown.

Not only did Goldschmidt reorganize the City's planning capability and bring in new staff, he played a critical role in restructuring the Tri-Met Board. At his request in March, 1974, Governor McCall replaced the entire Tri-Met Board. Key among the new appointees were Gerard Drummond as Chairman and Steve McCarthy as Board member. Drummond was a critical link between the traditional highway interests of Glenn Jackson and the transit interest of Goldschmidt. Drummond had served as legal counsel to Pacific Power and Light for which Glenn Jackson served as Chairman of the Board. Further, Drummond had been a major figure in the financing of Goldschmidt's political campaign for mayor.

McCarthy was another critical figure. He had been active as a lawyer in the fight by STOP to halt the Mt. Hood Freeway. His appointment to the Tri-Met Board helped strengthen the Board's orientation to a broader transportation mission for the agency. He was later appointed Assistant General Manager. In this role he played a key part in the process of moving Tri-Met from a passive participant in the process of developing the Banfield DEIS to an advocate for LRT. Indeed, during his tenure as Assistant General Manager, Tri-Met made the first major effort to live up to its planning capability, replacing the Planning Director and six other planners in November, 1974.

Policy Changes at Tri-Met

This change in the policymaking apparatus of Tri-Met nudged the organization, for the first time, beyond the routine of simply running and maintaining its existing bus system. Bill Hall, who emerged as the Planning Director after the staff change, suggested that the Board shakeup identified the competing expectations of the transit agency. Under the old Board and General Manager Admiral Tom King, the agency basically focused on rebuilding the system inherited from the previous private provider, Rose City Transit. While King has been portrayed in mixed terms by local observers as either the principal agent of this mission or an individual who had broader visions for the agency but was restrained by the Board, it is clear that until the Board changed, Tri-Met was not going to adopt an activist role in support of a broader future for transit.

Indeed, it was Goldschmidt's vision of a larger role for transit and his leverage politically which led to the eventual transition of the agency in the view of the Tri-Met insiders of the period.

While McCarthy could observe at the beginnings of the DEIS process that Tri-Met was not even competent enough internally to site a bus shelter, its standing in the larger metropolitan community was even shakier. The lack of transit leadership, far more than effective bus service, led the major political actors in the region to assume the mantle of transit advocate, a peculiar position in the presence of a self-standing independent transit agency. Indeed ODOT was initially given the lead on the Banfield corridor both for its institutional strength and the early assumption that a busway would be built. As the process unfolded, Tri-Met was unable to play an effective role because it was not organizationally capable of making a contribution or lacked the political *and* technical credibility to gain attention. An example of this ineffectiveness was Tri-Met's inability to thwart the elimination of the LRT option in 1976. While this may have reflected Tri-Met's own internal ambivalence to the alternatives analysis process at the time, the lack of organizational competence to articulate transit requirements and operational considerations did not enhance its leverage.

With the new Board, the agency began evolving and the additional staff created new opportunities for Tri-Met. In addition to McCarthy, the organization hired two individuals who added substantially to its role in the planning process. Bill Hall became Planning Director, and his persuasive capabilities and organizational skills ultimately gave Tri-Met a greater role in the planning process. In addition, Bob Post and Rick Gustafson, who had survived the staff shakeup, and the new planners developed the core of a planning department. While Tri-Met could not stop the elimination of the LRT option, it could react to it. Indeed, as McCarthy and others slowly realized, they would be left to operate the ultimate project and needed some input to the decision process. Working closely with Tom King and Gerard Drummond, McCarthy and Hall engaged the services of Wilbur Smith and Associates to demonstrate the feasibility of LRT. While the staff did not have a substantial technical argument to support their inclination for LRT, they did recognize the operating costs of continued reliance on buses in the corridor, the implications for the transit mall and the potential long-term political liabilities of a busway. Further, they believed that the LRT would provide a technological sophistication for the agency and produce a construction project compatible with the expressed pressure to build something and not lose Interstate Transfer financing monies. Finally, there was an inherent fascination in constructing a "Big Shiny Thing" as a bold demonstration of the commitment to transit.

The effort was more than getting back into the technical process, however. It required a major change in the orientation of the agency and its public perception, a slowing down of the Banfield technical process and taking some substantial political risks. In concert with its consultant effort, therefore, Tri-Met launched a major campaign of organizational development. Relying heavily on an internal analysis process, the agency developed a 1990 plan which laid out not only a more sophisticated service

system for the region but a redesigned organizational philosophy evidencing a much more comprehensive approach to transit service delivery. The proposed 1990 goals were:

- Support regional policies for growth without major new investments in highway capacity by developing and operating a transit system which provides travelers with an attractive alternative to the private automobile;
- Develop and implement a transit financing program to support the construction and operation of the system through 1990;
- Improve productivity with capital and operating investments and sound, innovative management policies;
- Make a major contribution to the improvement of the regional environment and the livability of urban neighborhoods;
- Maximize energy conservation and efficiency in the design and operation of the transit system;
- Improve transit mobility for the transportation disadvantaged;
- Encourage growth patterns within the regional land-use plan which support efficient transit service.

The following "Policy Choices" from the *1990 Report* indicate the method in which the alternatives were presented to the Board (page II-4 from report). Clearly, the complex issues of transit as a major transportation mode for the region do not always conform to the "black and white" portrayal made here. But, from the perspective of an agency carving out new "turf" in the metropolitian transportation system, thinking in grand scale terms was a necessity.

Tri-Met Policy Changes

I. Transportation Service Policy

Option A

Provide high-quality regional transit service to attract an increasing percentage of regional trips, with the capacity to expand rapidly through a network of high-speed corridors and feeder lines. (Probable patronage, 220,000-400,000, depending on land development trends, auto costs, public policies supporting transit, etc.)

Option B

Improve service levels as demand increases, according to Tri-Met service policies and within current available resources. (Probable 1990 patronage, 160,000-200,000, depending on land development trends, auto use, transit operating cost increases, etc.)

II. Financing Policy

Option A

The costs of transit are a part of the total community's transportation costs. Tri-Met will continue to seek financial support from the general public to meet the community's social and environmental goals with transit.

Option B

Transit users should bear a minimum level (current standard is 40 percent) of the total costs of transit; growth in service will be primarily a function of farebox revenues.

III. Productivity Policy

Option A

It is Tri-Met policy to increase productivity by increasing speeds and vehicle capacity through prudent investment.

Option B

Improve service levels as demand increases, according to Tri-Met service policies and within current available resources.

IV. Environmental Policy

Option A

Transit will play the major role in improving the quality of the urban environment through transportation decisions, by absorbing sufficient travel demand to enable the downtown and other community activity centers to grow without increased parking, and by developing environmentally superior modes of operation.

Option B

Transit will make improvements in transportation-related environmental impacts, but the community must rely on technological improvements to make major changes in auto and transit vehicle impacts on the environment.

V. Energy Policy

Option A

It is Tri-Met policy to aggressively pursue the conservation of energy, and to find methods of reducing transit's reliance on a single petroleum energy source.

Option B

It is Tri-Met policy to aggressively pursue the conservation of energy, and to continue to rely on petroleum as the primary source of energy for operations.

VI. Mobility Disadvantaged Policy

Option A

It is Tri-Met policy that the transit system will be made totally usable by the mobility handicapped and elderly by 1990, and that the transportation disadvantaged will receive high priority for service investments.

Option B

It is Tri-Met policy to improve service to the transportation disadvantaged as funding permits.

VII. Urban Development Policy

Option A

Tri-Met will participate with local jurisdictions and regional agencies in an aggressive growth management program to ensure that transit capital and service investments have maximum influence for growth.

Option B

It is Tri-Met policy to expand service as demand warrants, limiting high-quality service to areas with urban densities and following urban growth as it occurs.

The report also provided a list of policies to operationalize these goals:

Transportation Service Policy

Provide high-quality regional transit service to attract an increasing percentage of regional trips, with the corridors and feeder lines. (We plan to serve daily 1990 transit patronage from 220,000 to 400,000 depending on land

development trends, auto costs, public policies supporting transit, etc.).

Financing Policy
The costs of transit are rightfully a part of the total community's transportation costs. Transit users must continue to bear a significant portion of total cost (current standard is 40 percent operations department costs); capital and operating costs of the system should be highly visible to the public and Tri-Met should seek support from the general public in determining how to pay for these costs.

Productivity Policy
It is Tri-Met's policy to increase productivity. Productivity is defined as passenger miles per dollar cost including operating and capital costs.

Environmental Policy
Transit will play the major role in improving the quality of the urban environment through transportation decisions, by absorbing sufficient travel demand to enable the downtown and other community activity centers to grow without increased parking, and by developing environmentally superior modes of operation.

Energy Policy
It is Tri-Met's policy to aggressively pursue the conservation of energy and to find methods of reducing our region's basic reliance on a single petroleum energy source for transportation.

Mobility Disadvantaged Policy
It is Tri-Met's policy that the transit system will be made totally usable by the mobility handicapped and elderly by 1990, and that the transportation disadvantaged will receive high priority for service improvements.

Urban Development Policy
Tri-Met will participate with local jurisdictions and regional agencies in an aggressive growth management program to ensure that transit capital and service investments have maximum influence for efficient land use to prevent urban sprawl.

In concluding his recommendations to the Tri-Met Board, General Manager King made the following observations:

> If the Board chooses policy "A," several immediate actions are appropriate. The Banfield is clearly the first priority corridor in the region. The Banfield Project alternatives should be broadened to include an LRT line from Gateway to Lents along the I-205 right-of-way. Provision was made earlier in I-205 design for space for LRT. This alignment would be an additional alignment to the East Burnside route now being considered. This action should be in the form of a request to the CRAG Board of Directors.
>
> Decisions on the I-205 busway should be held up pending the Banfield decision. Sunset and Oregon City corridor projects should be accelerated when the Banfield decision is made. Tri-Met should cooperate with the interagency technical staff at CRAG to accomplish a better definition of project purpose and scope, and request of local governments acting through the CRAG Board a clearer indication of what is desired prior to Tri-Met/ODOT proceeding with the environmental impact statement on those two projects. No priority decision between the two is needed immediately, but one should be made by the time the Banfield decisions are made. These tasks should be accomplished within eight to ten months so the region can move ahead with constructing the transit system.
>
> The impact of the Board's decision on specific corridor projects must be qualified by the need to proceed with Environmental Impact Statement procedures in each of those projects. The Board's decision is a statement of a conclusion about what is ultimately the best regional transit system and a commitment to build an LRT system if it results from specific corridor projects. Tri-Met must follow the appropriate federally required process and withhold specific funding decisions until after the alternatives analysis evaluation is made in each corridor.

While the recommendation by King clearly hinges on the final project choice for the Banfield, it is clear that the Tri-Met Board when it adopted the goals statement of the *1990 Report* knew that it was not only leading to an upgraded transit agency but a potential commitment to LRT. Indeed, the Tri-Met staff believed that the *1990 Report* process was basically a "window dressing" means of advocating LRT outside the DEIS, from which it was precluded without a major transit alternative.

New Staff at Tri-Met

Less than a year after the adoption of the *1990 Report* in June, 1977, the DEIS was completed and the public hearings held. Subsequently, and prior to the local approvals for LRT, a major staff shakeup took place at Tri-Met. General Manager King retired and was replaced by Peter Cass. Cass had no formal background in transit, coming to the agency from the public relations domain of the private sector. His selection as Manager by the Board reflected their commitment to an upgraded management system for the agency. Cass proceeded to recruit additional management staff to further upgrade the agency's operational capability. In particular, he was responsible for obtaining the services of Paul Bay, Jim Cowen, and Don MacDonald. Bay, the agency's new Planning and Development Director, had substantial experience with the development of the BART system in San Francisco. MacDonald had been Project Director on the construction of the Edmonton rail system. Cowen became Operations Director. Bay and MacDonald brought substantial expertise in rail technology to the agency, experience it lacked until that point. Cass also recruited additional operations staff, substantially increasing the sophistication of that part of the agency in preparation for LRT.

The choice of Cass as General Manager and the recruitment of professional rail staff marked a watershed in Tri-Met's organizational development. While the adoption of the *1990 Report* had put the metropolitan area on notice that the agency intended a transformation in its manner of doing business, it still lacked the staff to give this change credibility. Indeed, Goldschmidt, at a Tri-Met Board briefing on the *1990 Report* in April, 1977 had chastised the agency as being unready to assume responsibility for the operation of such "sophisticated" technology. The retirement of King provided the Tri-Met Board with an opportunity to make good on its 1990 commitment. Although Steve McCarthy as Assistant General Manager was assumed to have the inside track for the appointment, he had burned a number of political

bridges in leading the fight to reintroduce the LRT to the DEIS process. Consequently, a nationwide search was launched which produced Cass's selection. Paradoxically, the search also identified Don MacDonald as a candidate for the position.

MacDonald had some familiarity with the agency already since he had been retained to provide consulting services on the LRT alternatives analysis. The Board's final selection, however, can be interpreted as a decision to radically change the management style of the agency and reach outside the transit community for that talent. MacDonald's selection also pacified CBT demands for greater LRT expertise within the agency. In effect, Cass was a classic "change agent" selection.

Cass, however, recognized the need to substantiate the agency's operating capability and credibility. Hence, he intentionally sought Bay and MacDonald in that vein. Moreover, Cass wanted to reassure himself that the LRT was a viable choice for transportation services. Hence, shortly after Bay and MacDonald joined the staff an internal staff review of the LRT concept was launched to reaffirm the technical justification for the system. Bay himself indicated that he would not have accepted the position unless the commitment to the system was "real" and unfettered by unrealistic political commitments and shoddy technical justifications. Finally, Tri-Met was shifting from an advocacy role to consensus building. It needed technical credibility and stability.

In retrospect, the events that led up to the reorientation of Tri-Met as a transit agency were an unplanned but necessary organizational evolution for the metropolitan area. This change in the transit agency made the final decision to proceed with the LRT credible. Without an actively involved, more sophisticated transit agency, the system when built might fail to perform as expected. Further, the analytical process had been seriously weakened by Tri-Met's passive partner role in dealing with the state and federal governments.

The Technical/Political Marriage

The principal technical people throughout the decision process were Ernie Munch, Doug Wright, Ted Spence, Bob Bothman, Bill Hall and Steve McCarthy. While others played critical roles at varying times, Bothman and Wright were the technical stage managers for the project. Though they served different jurisdictional interests, their commonality of concern for an effective regional transportation system and personal relationship served as catalysts toward working accommodations at squeak points along the way. More importantly, however, both of them had the support and ear of the two most critical political actors for the region, Glenn Jackson and Neil Goldschmidt.

The dimensions of the political/technical interface are not fully discernable. While the individuals interviewed for this project were all quite candid, fading memories and still touchy political areas may have limited the amount of data gathered. Yet, several observations are possible. The politicians wanted workable options which would meet real needs. Technical viability provided crucial support for the political initiatives involved and protected the politicians at points of public conflict. Both Jackson and Goldschmidt were political realists who listened to their advisers before committing to projects. Most importantly, however, with few exceptions, the politicians realized that long-term viability of the decision process rested on joint involvement supported by adequate technical analysis. Hence, they permitted and encouraged their technical people to work together constructively rather than drawing lines of political conflict through which technical answers and accommodations could not pass.

Bothman and Wright carried most of the burden in developing workable solutions to the problems of the Banfield corridor. It was Wright who developed and wrote the justification for the withdrawal of the Mt. Hood Freeway. Further, he drafted the letter submitted by Straub justifying and requesting the withdrawal to US DOT. As Len Bergstein, former adviser to Straub, suggested, Wright had close contacts with US DOT officials in Washington and was aware of the Interstate substitution process which set up Portland's options. Portland was the first major substitution after Boston which meant that US DOT had not much experience to go on. An aggressive, well-informed local technical process was an effective basis for dealing with the federal agencies. Further, the consensus built at the technical level provided a critical base for the politicians to arrive at a commitment for withdrawal and provided a stimulus for collective regional consensus.

While ODOT had the lead on the DEIS for the Banfield, the cooperative technical relationship enabled a joint effort at troubleshooting the analysis. When the initial analysis of technical data indicated that an LRT only to Gateway was not feasible, Bothman and Wright were responsible for its demise at the CRAG technical committee level. However, when Multnomah County threatened to sue and Tri-Met initiated its effort to reinstate it as an alternative, Wright provided critical technical support, which Bothman did not actively oppose. Facilitating ODOT's support was the pragmatic recognition that no transit project alone would solve the congestion problems of the corridor—ODOT would get a freeway—and the linkage of the I-205 freeway to the fate of the Banfield corridor.

While the relationship between Tri-Met and ODOT has never approximated the closeness of the Portland/ODOT context, it is still workable and less conflict-ridden than might be true in other cities. When Wright left the scene to become Deputy Secretary of Transportation, Paul Bay and Don MacDonald assumed the local liaison role with ODOT. There are tensions between the two agencies but the behind-the-scenes linkage between them has provided an outlet for their tempering if not resolution. This has been particularly true for the construction phase of the

project which requires an intimate timing of assigned tasks of the two agencies.

Finally, the role of Gerry Drummond, while less visible, was crucial to the decision process. Despite the initial staff weaknesses of Tri-Met, Drummond was a central participant in the decision process. His linkages to Jackson and Goldschmidt provided an access point for Tri-Met's input. Further, his political credibility provided a means to move things forward, despite Tri-Met's image as a weak agency. Indeed, if Drummond approved of an approach to an issue the Governor's staff would support his position, assuming that he would never take a position without the support of Jackson and Goldschmidt.

In the financing phase of the project, the political and technical linkages paved the way for effective Congressional lobbying. The local consensus produced in support of the project was a major leverage point for the metropolitan area. It helped persuade both the state Congressional delegation and the respective federal agencies of the sincerity of the regional commitment to the project. Wright, in 1980, was able to use his familiarity with the federal process to troubleshoot US DOT approval of the Portland project. Further, the Goldschmidt/Wright linkage to the Oregon Congressional delegation facilitated a last-minute, literally handwritten agreement producing Congressional authorization for the project.

The Transformation of ODOT

Concerned by the decisions to withdraw the Mt. Hood Freeway and redesign I-205, ODOT had to adjust to a new transportation decisionmaking arena. This development, however, was facilitated by larger changes taking place in the Salem office. Under George Baldwin as ODOT Director, the Department had become a Transportation agency in name but still functioned primarily with a highway orientation. Straub ultimately replaced Baldwin with Robert Burco. While Burco never had real involvement in the Banfield issue, he managed to influence the direction of the Department sufficiently to give the Metropolitan Division more latitude in metropolitan political relationships. Further, he was a strong supporter of withdrawals and facilitated support for the Portland effort.

With this supportive environment, ODOT declined an FHWA request for a list of substitute projects in lieu of the Mt. Hood Freeway. This position arose out of Portland's insistence that they did not have a list of substitutes ready and wanted more time to develop them, partly for political reasons in terms of the local consensus and partly to avoid the problems of lawsuits developing in response to prematurely identified projects. The Mt. Hood and I-205 experiences had clearly demonstrated lawsuit problems which could stymie construction projects, something no one wanted to repeat. To facilitate the metropolitan and state working relationship with FHWA, Straub personally called FHWA Administrator Tieman to arrange a meeting among Goldschmidt, Drummond and Jackson on the withdrawal. While specific options had not been identified at the time, the support of ODOT in working with the Governor's office helped promote a smooth withdrawal process. Under Burco's support and with the leadership of Goldschmidt, ODOT allowed ideas to move forward.

Traditionally, state highway departments have not developed smooth working relationships with metropolitan areas. They have generally seen their missions as statewide in character and solely as construction oriented. The changes that took place in the ODOT case provide at least a neutral role vis-a-vis the interests of the metropolitan area and, by virtue of a few key ODOT actors, a supportive environment at key points.

The Federal/Local Relationship

Typically, federal agencies often deal with conflict-ridden metropolitan areas. Frequently contending local actors attempt to pit FHWA and UMTA against their perceived opponents, often simultaneously. This has led to federal insistence on a common framework of a comprehensive, coordinated and continuous planning process for metropolitan transportation investments. Further, the development of a local consensus and choice by all local jurisdictions is encouraged as a necessary demonstration of local commitment.

The construction of the local consensus was a time-consuming, complex and difficult process. Existing inside and outside the channels of the MPO forum and growing as it did from the Governor's Task Force effort to strengthen CRAG, it lacked the rigidity produced by a well-established, formalized institutional focus and process. As a result, a number of individual and separate actions were necessary to patch it together and induce cooperation, even after agreement on the LRT. There was a constant local fear that the consensus would unravel at any time, a problem dealt with at several meetings among Jackson, Drummond, and Goldschmidt. Further, the fact that Portland took such an entrepreneurial approach to federal procedures at all phases of the decision process led to a significant degree of confusion and ambiguity. The local consensus, however, was the key to federal approval. While confronting the federal agencies with what appeared to be a chaotic process, it nonetheless produced a united and persistent front. The consensus held up under a number of attempts to split it, particularly during the battle for funding later in the project. "Lubricated" by the dollars promised each jurisdiction from Interstate withdrawal funds and the consequences of failure, all jurisdictions shared an interest in seeing a successful outcome. Rather than fighting amongst themselves, they formed a unified approach to a common problem. Effectively employing any and all tools at their disposal, the metropolitan area refused to take "No" for an answer.

Chapter 6
Citizen Participation in the Decisionmaking Process

SOURCE: R. Bruce Forrester/Tri-Met

A key link in building the consensus needed for the Banfield Light Rail Project has been involving citizens in the decisionmaking process in its entirety. ODOT and Tri-Met have worked with the Citizens Advisory Committee (CAC) to bring about one of the most impressive citizen involvement efforts in Portland's recent history.

Beginning in 1975 with the withdrawal of the Mt. Hood Freeway under community pressure, citizen involvement has evolved to become a formal link in regional transportation decisionmaking. The CAC was created in 1976 to assist in project evaluation and to present concerns of the general public to technical staff. Public involvement has progressed through three distinct phases: the alternatives analysis phase, the design and land-use phase, and the construction phase.

Alternatives Analysis

When the Mt. Hood Freeway was withdrawn in early 1975, CRAG initiated citizen involvement in transportation decisionmaking in producing the Interim Transportation Plan (ITP). CRAG identified the three major corridor alternatives to the Mt. Hood during this time, and placed the Banfield corridor in the priority position.

Some 80 neighborhood meetings and eight public hearings were held to discuss regional transportation needs for the ITP. Further meetings were held throughout

1976 and this public input was used in CRAG's Regional Land Use Goals and Objectives adopted in September, 1976.

Tri-Met then carried the ball in soliciting citizen input to determine long-range transportation development for the region through 1990. Between 1976 and 1977, some 120 public meetings were held. This ultimately led to a regional public involvement process applied to future transportation planning efforts such as the Westside Corridor.

The Citizens' Advisory Committee

In accordance with US DOT requirements for citizen participation in the DEIS, a newly reorganized ODOT in late 1975 created the CAC. The CAC had formerly been active in the Portland Transit Mall, and was revived as the official citizen advisory element in defining regional transportation alternatives.

The first letters soliciting committee members were issued October 27, 1975 and were sent to neighborhood associations and business organizations. The CAC began with 15 members who set out initial goals and objectives for their mission as follows:

- Identify specific impacts and problems;
- Define important public attitudes and concerns;
- Suggest improvements and public information feedback programs;
- Suggest additional ways of involving the public in the study of alternatives;
- Assist ODOT and Tri-Met in contact with affected groups and individuals;
- Advise in the development of alternatives;
- Aid in project development through frequent and frank communications with ODOT at an early stage regarding the project and planning, continuing exchange of all information (with notification of citizens about available information) and a continuous process of participation and review.

The mission of the CAC was to assist in achieving a high degree of citizen awareness for the DEIS Public Hearing. The major functions of the CAC were: to inform itself about transportation alternatives proposed by ODOT and Tri-Met, to make recommendations on alternatives and to testify at public hearings. Although ODOT was the lead agency involved with the CAC, Tri-Met had full responsibility to work with the Committee on transit options.

There were some problems with the CAC initially as participation was erratic. There was also some difficulty in dealing with the increasing complexity of issues in regional transportation alternatives as presented by ODOT and Tri-Met. To remedy this situation, ODOT revamped the Committee in September, 1976 to make it more effective. Letters of appeal and requests for nomination were sent out to a broader range of community groups for the second effort. These groups included chambers of commerce, city commissions, state representatives and numerous special interest groups. The response was good and CAC membership jumped to 30. By 1978, the official membership had grown to 133 persons.

In order to meet the original Public Hearing deadline of July, 1977 (later extended to April, 1978) the CAC accelerated its activities and scope in November, 1976 by forming six subcommittees. These subcommittees would study various aspects of proposed alternatives and then report to the Committee at large. The subcommittees were:

Home Owners;

East County Jurisdictional Representatives;

Lloyd Area Businesses;

Hollywood Area Businesses;

Low-Cost Improvement Alternatives;

General Interests (areawide impacts, light rail option, traffic circulation).

More members were solicited to fill subcommittees throughout 1977 and two more subcommittees were added before the final public hearing:

Downtown Businesses;

Public Information (to facilitate the 1978 Public Hearing).

At CAC and subcommittee meetings, ODOT and Tri-Met staff would present technical reports and progress reports for evaluation. The general approach to these meetings was one of informal and frank discussion between project staff and CAC members, an approach which seemed to work well.

Early Accomplishments

In spite of the initial need for reorganization, the CAC had achieved several accomplishments in 1976 which included:

- Appointment of a CAC member to the Banfield Technical Advisory Committee (TAC) as a liaison for citizens;
- Supply of a public meeting chairperson to assist ODOT and Tri-Met;
- Suggestion that ODOT produce an informational slide show on transportation system planning and later critiquing the program;
- Preliminary analysis of alternatives which emphasized more highway and low-cost improvements, and suggested that the LRT alternative be extended to Gresham.

In 1977 the Public Hearing date was moved forward to April 6, 1978 and the CAC intensified both its public involvement program and analysis in individual committees. Accomplishments during 1977 were as follows:

- Improving citizen involvement in the Banfield program by suggesting better media techniques;
- An alternative southeast route proposal set forth by the Homeowners Committee which ODOT and Tri-Met considered but found undesirable;
- Analysis of the current effectiveness of HOV lanes being used on the Banfield;

- Adding a full-width freeway alternative with six lanes plus shoulders (adopted by TAC and CRAG);
- Evaluation of Tri-Met's three systems alternatives: TSM strategies, HOV lanes and Busways, and LRT (in addition to reviewing the 1990 Transportation Systems Analysis Report);
- Review and agreement on the new ODOT public slide presentation;
- Review of the Tri-Met East Side Operations Report.

Toward the end of the year, the Public Information subcommittee was formed to produce system alternatives information for the first hearing on the DEIS in April. This subcommittee worked closely with Tri-Met and ODOT to maximize citizen involvement.

The 1978 DEIS Public Hearing

With the new DEIS Public Hearing date set for April 6, 1978, the CAC, ODOT and Tri-Met made an all-out effort over the first three months of the year to involve the local citizenry. The Citizen Involvement Program used three approaches: informing the general public, identifying and informing key groups, and public hearings. The public informational techniques used throughout the decision-making process were numerous and can be categorized as "media" and "direct" techniques.

Media Techniques

Press releases—Forty-eight were given prior to the April hearing for informational purposes and to build public interest.

Media briefings—Over 600 newspaper articles appeared before the April hearing.

Radio and television appearances—Over 30 appearances before the hearing.

Public service announcements—Employed just prior to the hearing.

Newspaper supplement—Published in two newspapers and handed out at public meetings to build public awareness.

Direct Techniques

Slide Show—The first was produced to explain and justify the alternatives analysis approach to homeowners and the media, the second on the light rail alternative.

Newsletter—"The Transitway News" was begun in 1976 and is still published to maintain contact with 2,000-plus people on the mailing list.

Display Ads—Quarter-page ads were placed in three newspapers just prior to the hearing.

Display Booths—Set up in malls and banks to distribute flyers, maps and brochures. Tri-Met in addition set up an "Ask Me" Bus on the Transit Mall downtown.

Project Office—An ODOT office was set up in the project area to distribute general information, the DEIS, and to answer citizen questions.

BANFIELD TRANSITWAY PUBLIC HEARINGS

Testimony of Individuals

	Number	Percent
Alternative #1 - No Build	15	6%
Alternative #2 - Low Cost Improvements	10	4%
Alternative #3 - HOV Lanes (20 were anti-LRT)	29	11%
Alternative #4 - Busways (4 were anti-LRT)	8	3%
Alternative #5 - LRT (14 favored LRT plus other options or had qualifications)	128	50%
More than one Alternative	4	2%
Anti-#5 - LRT	21	8%
Pro-freeways only	7	3%
No preference/anti-options/different options	36	14%
Total	258	101%

SOURCE: *Tri-Met*

Telephone Survey—Two surveys of 384 people each were sponsored by ODOT in the study area. The surveys served as both a feedback mechanism and as a way of increasing interviewee understanding of the alternatives being considered.

Public Meetings—To inform the public about meetings, an interested parties list was built from interest groups, prepaid return post cards, and prior public meetings sign-up sheets.

Public Speakers Bureau—For a year prior to the hearing, Tri-Met provided a Speakers Bureau to make public presentations. Tri-Met's strategy was to target sympathetic community groups for participation.

Committee Meetings—Much committee work was done by Tri-Met with civic organizations such as the City Club and chambers of commerce which led to organizational recommendations for the public hearings.

DEIS—The DEIS, which was made available one month prior to the public hearing, discussed in detail all alternatives being considered.

Finally, the DEIS Public Hearing itself was used as a forum for citizens to express their preferences for transportation alternatives and concerns over improvement impacts. The April 6, 1978 meeting was held in two sessions where nearly 300 citizens and groups submitted comments influencing the ODOT selection of the combined highway widening and light rail alternative. Nine major areas of comment recorded in the DEIS and later addressed in the FEIS are as follows:

- Selection of the Banfield as a Regional Transitway;
- LRT project costs/ridership potential;
- New alternatives/variations on DEIS alternatives;
- Traffic/pedestrian circulation;
- Reliability/safety of LRT;
- Use of existing tracking;
- Adverse proximity impacts;
- Energy;
- Impacts on development patterns.

Following the DEIS Public Hearing, additional public hearings were held by all of the local public entities involved. The key event, however, was the CAC's vote in support of the Burnside LRT. The first entity to do so, its action added credibility to subsequent decisions. In August, 1978, Tri-Met made public its recommendation for an LRT alignment in the Banfield/Burnside Corridor and on September 20, 1978 held a hearing to receive public comment. The Tri-Met Board of Directors approved the alignment which was subsequently adopted by the Gresham City Council. By December, 1978, agreement had been reached on all but the downtown section of the LRT alignment, including resolutions of approval adopted by the City of Portland, CRAG and ODOT.

During the final LRT alignment approval stage from October 2 through November 15, 1978 the Preliminary FEIS was distributed for review to local jurisdictions. During the next few months a series of six Downtown Forums were sponsored by Tri-Met to reach agreement on the downtown alignment, eventually resulting in the cross-mall alignment. On January 5, 1979, the FEIS and the selected alternative was submitted to US DOT, thus ending the alternatives analysis phase of the Environmental Impact Statement.

CAC Contributions

The three-year mission of the CAC reached its climax in the 1978 DEIS Public Hearing. Thus, the CAC played an essential role in the first stage of the transportation decisionmaking process—alternatives analysis. The CAC obtained two major objectives: providing alternatives evaluation and transportation system recommendations to ODOT and Tri-Met, and informing and representing the general public. Major CAC contributions according to an ODOT analysis of citizen participation in the Banfield Transitway are as follows:

- Establishing goals and objectives early in project development;
- The public awareness slide shows;
- The full-width freeway alternative;
- Inclusion of the low-cost alternative;
- Changing eastside bus service from a radial to a grid system for increased efficiency and better coordination with the future light rail system.

The CAC has been successful in defining local concerns and in identifying special problems and sensitive areas. It has taken on the massive task of educating itself on both technical and broader issues of the Banfield Project. Most importantly, evaluations and recommendations made by the CAC have been useful to ODOT and Tri-Met in their decisionmaking.

The CAC has done much toward making the transportation planning process responsive to community concerns. Extensive effort has been made to contact special interest parties and to educate and inform the general public. The CAC has been instrumental in encouraging meaningful citizen input into the first vital stage of the Banfield Project—alternatives analysis and selection.

Design and Land Use

The second phase of citizen involvement covered a period of four years beginning in late 1978 and continuing through mid-1982. Emphasis at this time was given to FEIS approval, engineering, and funding, topics largely out of the realm of citizen input. The design and land-use aspects of the light rail became the focus of citizen participation during this period.

After the DEIS hearing in April of 1978, smaller subcommittees (some of which still contained former CAC members) constituted the citizen involvement element. Since the freeway expansion was a known and certain quantity, ODOT turned its attention to preliminary engineering studies and construction after FEIS approval. Planning for the new and more controversial light rail fell to Tri-Met, which continued and still maintains a Banfield Citizen Involvement Program.

While US DOT approval was pending, Tri-Met held a series of public meetings from January through April, 1979 in areas which would be directly affected by light rail impacts. Preliminary design plans for routeways and

stations were aired and many potential impacts surfaced in these discussions which were helpful to Tri-Met decisionmaking. Tri-Met then continued its geographically specific focus in east Multnomah County throughout the rest of the year and sustained its broader public information effort as well. These broader efforts included County and Neighborhood Fair displays, presentations to various community groups, radio and television presentations, and the continued publication of "The Transitway News." Such broad public outreach techniques are still ongoing.

The Banfield became an official construction project in 1980, and during the next two years public input was heavily solicited from impacted areas in the corridor. An Overall Citizens' Advisory Committee was set up by Tri-Met as a forum for affected area residents to air their land-use and design concerns. These meetings were open to the public and broadcast on the radio. A major concern of the Upper Burnside and Holladay communities was the project effect on neighborhoods in already developed areas. In response to this concern, Tri-Met encouraged the formation of a local comprehensive planning and zoning policy to encourage development where appropriate within the corridor.

The design element of the light rail project had been subjected to scrutiny by various public entities. A formal design committee of five people advised on aesthetic and comfort decisions related to stations and light rail vehicles. This committee was composed of architects, business people, and an Arts Board member. In addition to the advisory committee, various public and civic boards had a say in design review including the City of Portland, the Yamhill Historic District, the Old Town-Skidmore Historic District, etc.

With the beginning of construction on the Banfield in 1982, attention was changed again from a broader to a narrower focus. Design and land-use issues had largely been resolved, and now individually affected property owners became the citizen participation focus.

Construction

From mid-1982 to the present, Tri-Met has continued to involve and consult citizens throughout the construction phase. Meetings with Burnside neighborhood groups, various merchant associations, and local service clubs are an ongoing process.

Aerial view of Burnside Street under construction
SOURCE: *Don Zavin/Courtesy Fred Glick Assoc.*

The broader public relations front is also sustained. In 1983, this included public school presentations and a "Construction Art" exhibit. The most impressive citizen outreach, however, has been the Banfield Transitway Community Relations Program. This Tri-Met program employs a special staff team which works with neighborhood groups and one-on-one with individual property owners to reach agreement on changes made by construction easements. The program is staffed with seven people: a manager and six public relations specialists. Most of the staff is dedicated to community relations with one person providing public information, press contacts, and organization of community-wide forums and special events. The field office, which also contains engineering staff, is located on Burnside Avenue within the Project Corridor for easy citizen access.

Goals of the 1984 Fiscal Year Program included:

- Building the image of the Banfield Project;
- Keeping the general public informed about project and construction programs;
- An "Early Warning System" for upcoming construction events;
- Developing resolution provisions for property disputes;
- Implementing activities in a manner sensitive to residents and businesses;
- Instilling pride and advocacy for the project in Tri-Met Transitway employees.

The Community Relations Program involvement process includes meetings in small (10 block section) groups and with individuals and businesses in impacted areas. There are over 400 individually affected property owners. Those with property affected by light rail construction are able to review detailed design plans with Tri-Met before construction regarding issues of grading, sidewalk and driveway reconstruction, and the removal and replacement of trees and shrubs in the right-of-way. Complete agreement is reached with property owners before any construction takes place.

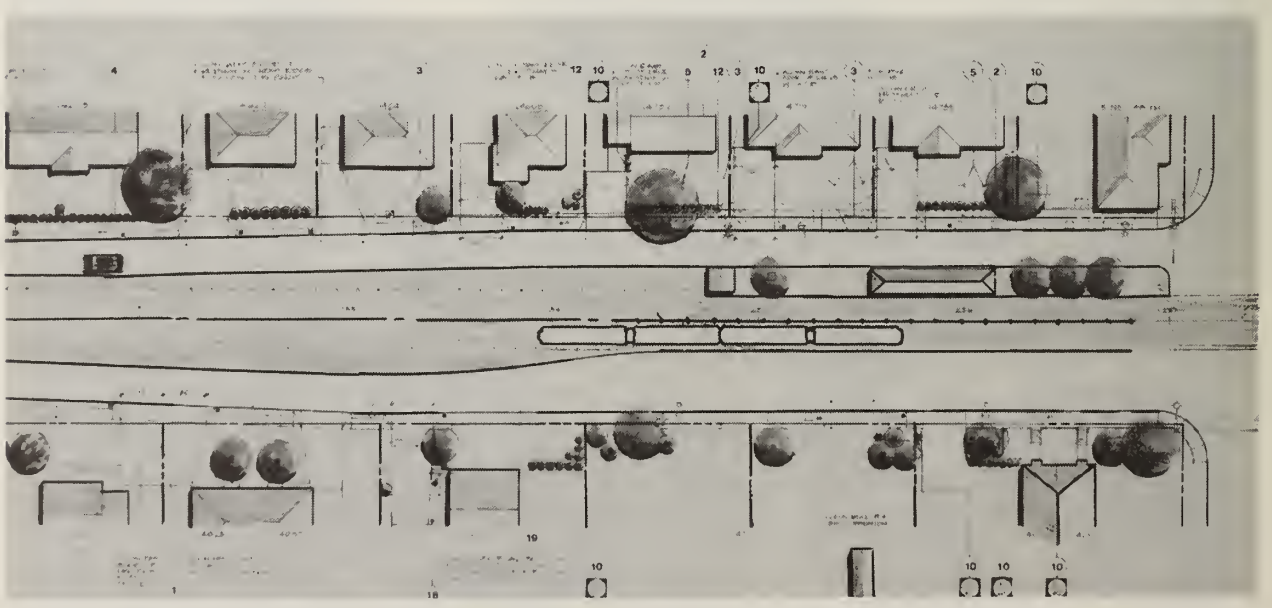
Unique to the Tri-Met program is the "Early Warning System," a 48-hour pre-notification procedure for notifying residents of utility shutoffs and new traffic routings. Special notice is given to businesses for any planned disruption of access. Notification is given using door hangers and phone calls. A hotline and 24-hour answering service have also been installed at the project office.

The construction phase has been met by Tri-Met with a good deal of forethought as to the impact of various transitway construction actions. As a final note on attention to detail, clean-up operations are monitored by the community relations staff.

Conclusions

Citizen participation has been both extensive and constructive throughout the entire Banfield decisionmaking process. Approaches used by ODOT and Tri-Met have attempted to address various "publics" from the broadest notion of the citizenry to individually affected property owners. Communicating with and gaining support from interest groups has been a major technique of citizen involvement. Existing community-based organizations were utilized as sub-community forums, and in specially impacted areas, new committees and organizations were set up with Tri-Met's help to address their special needs.

Keeping the broader public interested and aware of the Banfield process and project has been an ongoing effort



Individual site plans were prepared for each of the properties fronting on Burnside Street as part of the community relations program
SOURCE: *Fred Glick Associates*

spanning all three phases of decisionmaking. Agency responsibility for citizen involvement has changed, however. ODOT was heavily involved in the alternatives analysis phase as the lead agency, but turned its attention largely to engineering and construction after the Public Hearing in April, 1978.

Tri-Met worked in a cooperative effort with ODOT and the CAC in the alternatives analysis phase, and then took the lead in citizen involvement through the design and construction phases. Emphasis has changed from general public awareness in the first phase to the affected corridor in the second phase and lastly to individual citizens. This change in emphasis reflects a dynamic, evolutionary citizen involvement process that has been responsive to changing situations as the Banfield project moved forward. The future role of citizens when the LRT is completed is projected to take the form of committee involvement in evaluation and review of the new system.

Chapter 7
Financing Light Rail

Senator Hatfield speaking at the Light Rail vehicle dedication ceremony
SOURCE: *Tri-Met*

As suggested earlier, the initial financing for the LRT grew out of the Mt. Hood withdrawal. It also bears repeating that while these funds provided an initial pot of money for transportation investments, they were linked to corridors rather than a specific project. As a result, the withdrawal fund provided a "bank account" against which many transportation projects could draw. While the availability of these funds was questioned initially and subject to significant political manipulation when finally called upon, they represented a convenient backstop for decisionmaking. There was always a perceived source outside local financing for the costs of whatever project was chosen.

Initial Withdrawal

The early phases of the Interstate withdrawal fund allocation were accomplished without firm estimates of project costs or identification of sources for local matching funds, particularly for the Banfield corridor. Moreover, prior to the passage of the 1976 Federal Aid Highway Act, funds available under withdrawal action were limited either to remapped interstate highway miles or transit-related projects such as rail or busways. As indicated earlier, the passage of this act, particularly Section 103(e)4, permitted use of these monies for highway projects unrelated to transit. The Act also provided for quarterly escalation of the available entitlement based on the Interstate Construction Cost Index. The timing of the Mt. Hood withdrawal provided for its effectuation under the new legislation and opened up several options for the region. The responsibility for choosing among options fell to the CRAG Board of Directors under the Chairmanship of Neil Goldschmidt.

The planning staffs of the affected jurisdictions in the region had previously worked on establishing major corridor priorities and projects for the region. The Banfield,

Sunset and Oregon City corridors received primary attention, as did transit service improvements in southeast Portland. Under the flexibility of the 1976 amendments and at the urging of Governor Straub, CRAG chose to establish new priorities, creating for this purpose an Interstate Transfer Committee (ITC) to recommend processing, programming and priorities. The ITC was initially chaired by Rick Gustafson a former Tri-Met senior planner and, at the time, state legislator.

Soliciting projects in July, 1976, the CRAG Board established the following priorities:

- Southeast Portland/Multnomah County Projects;
- Transit projects for the Banfield, Sunset and Oregon City corridors;
- Other major and minor projects.

In soliciting projects from local jurisdictions, CRAG warned that ODOT should not be counted on for local match dollars. In August, 1976 the Board established, through Resolution 760801, the following policies and factors for choosing projects. The project should:

- Positively impact Southeast Portland and East Multnomah County;
- Maximize available dollars;
- Positively affect transit operations;
- Lend itself to early implementation;
- Solve interjurisdictional problems;
- Favor fuel conservation;
- Protect and preserve neighborhoods;
- Improve access to employment;
- Remain consistent with the ITP;
- Improve safety;
- Reduce congestion.

After receiving and evaluating project requests, the ITC and CRAG Board established five categories of projects reflecting the following concerns:

- Alternative means to the Mt. Hood Freeway for serving southeast travel demand;
- Investing in public transportation facilities as identified by the Governor's Task Force and the ITP;
- Equitably distributing the remaining funds throughout the region in order to solve transportation problems of a regional scope.

The following table summarizes the categories and funds authorized by the CRAG Board on September 1, 1977:

Table 1

Category I — Regional Transitway Projects	
• Banfield Transitway	$ 69,446,000
• Oregon City Transitway	56,000,000
• Sunset Transitway	26,875,000
• Tri-Met Technical Study	428,000
Total	$152,749,000
Category II — Southeast Projects	
• Powell Boulevard, River to I-205	11,008,000
• Southeast TSM	4,997,000
Total	16,005,000
Category III — Other Major and Minor Projects	$ 23,702,000
Category IV — East Multnomah County TSM	$ 5,000,000
Category V — Regional TSM (For projects not in SE Portland or east Multnomah County)	$ 5,000,000
Total	$202,456,000
Unauthorized funds	544,000
Total Estimated Amount Transferred (1976 dollars)	$203,000,000

By June 30, 1977, a total of $2,451,582 had been obligated by FHWA and UMTA as follows:

Table 2

Category I	$ 1,058,630
Category II	1,308,522
Category III	84,430
	$ 2,451,582

Source: *Interstate Transfer* prepared by Ernie Munch for Bureau of Structural Engineering, City of Portland, December 18, 1981, page 5.

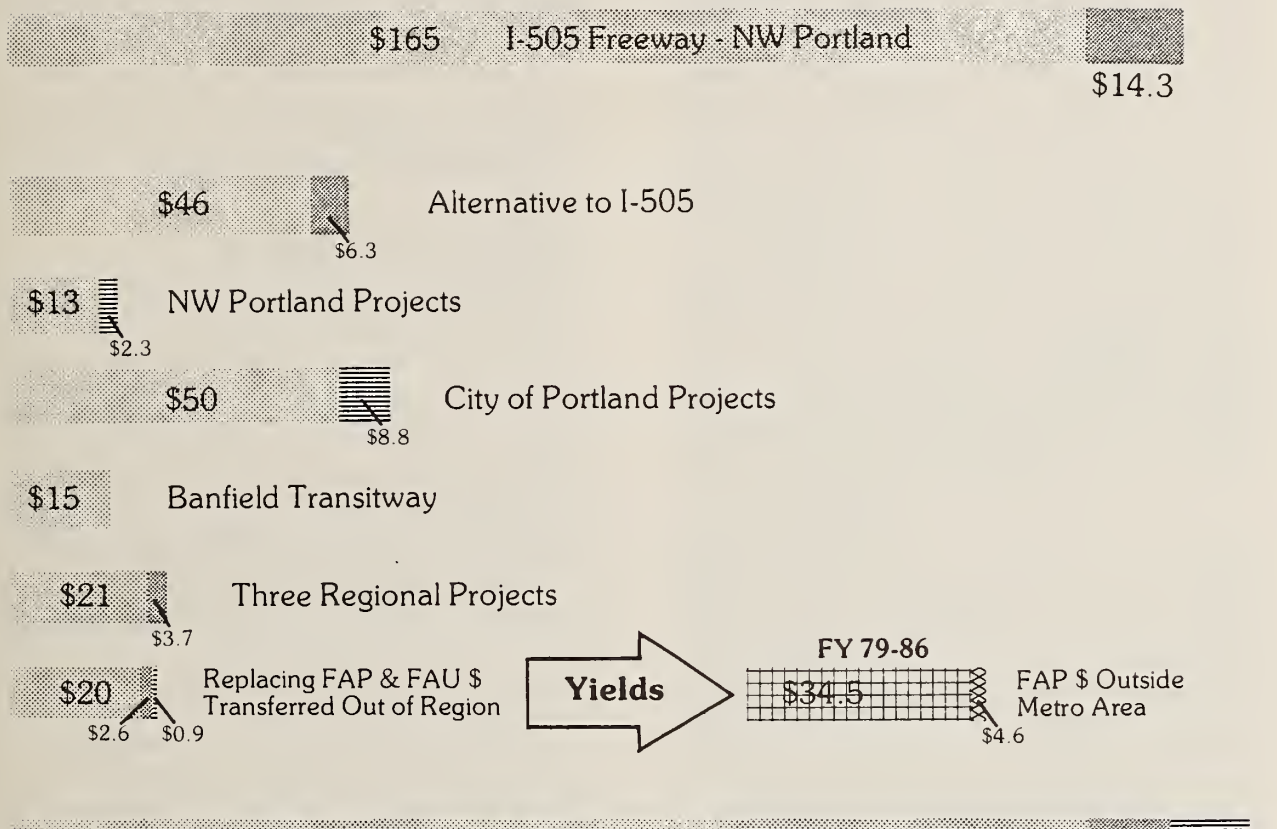
The deliberations of the ITC and authorizations of the CRAG Board were based on an estimate of $203 million in total funds as a result of the transfer (May, 1976), and 1976 cost estimates. However, in September, 1977, FHWA released information indicating that actual amounts transferred during 1976 amounted to only $191 million, which had inflated to approximately $203 in 1977 dollars. Causing a minor flurry at CRAG, this $12 million discrepancy was reconciled by redefining project estimates in 1977 dollars, thus spreading it equally among all projects. Establishing a baseline for accounting purposes, this technique also created a $3 million contingency fund. Working with these figures, if project costs were less than estimated the difference was credited to the contingency fund which was redistributed in 1978 to various projects within categories II-IV.

Based on this process of allocation, the Banfield project was originally given $69.4 million in Interstate transfer funds. This amount was later escalated from contingencies to $69.9 million. In 1978, the DEIS estimated the Banfield costs at $159 million, including related highway improvements in the Banfield freeway (Page 203, DEIS). The decisionmakers assumed that the additional funds would be forthcoming in a Section 3 capital grant, although no effort was made to solicit funds at the time. The project cost estimates, however, became cast in political stone, an event which raised substantial funding problems later in the process.

The I-505 Withdrawal

In November, 1978, Goldschmidt again instigated a withdrawal process, this time for the proposed I-505 or Industrial Freeway in northwest Portland. The context for this decision was tumultuous. The LRT had been selected locally by the affected units of government, the Metropolitan Service District (METRO-a new regional government) had been created by the voters to replace CRAG, a new governor had just been elected and the

I-505 Withdrawal



Summary

	Federal	State	Local	Total
I-505	$165 million	$14.3 million	—	179.3 milllion
Alternative to I-505	$46 million	$6.3 million	—	$52.3 million
NW Portland Projects	$13 million	—	$2.3 million	$15.3 million
City of Portland Projects	$50 million	—	$8.8 million	$58.8 million
Banfield Transitway	$15 million	—	—	$15.0 million
Three Regional Projects	$21 million	$3.7 million	—	$24.7 million
Replacing FAP & FAU Projects Transferred Out of Region	$20 million	$2.6 million	$0.9 million	$23.5 million
I-505 **Withdrawal** Program	**$165 million**	**$12.6 million**	**$12.0 million**	**$189.6 million**

The I-505 withdrawal paved the way to putting together the project local match
SOURCE: Tri-Met

source of local matching funds remained unidentified. With the technical process completed, the political process of identifying and securing project funds required adept handling and leadership. Under Goldschmidt's direction, the City of Portland assumed this role. Swift action was particularly important since Goldschmidt's personal control of the regional decisionmaking forum, CRAG, would expire on December 31, 1978 with the creation of METRO. In this context, the linkage of political and technical actors became very important, producing a swift and effective strategy for funding the project.

In comparison to the Mt. Hood experience, the I-505 withdrawal request made to the Governor was significantly different. A clear understanding as to the distribution of Interstate transfer funds was achieved between all participants early in the transfer process, and before the official approval was given by US DOT (Interstate Transfer, p. 12). CRAG expressed its understanding of the local agreements in December, 1978 (Resolution No. BD 781213), supporting the withdrawal. Identifying an expected $165 million in transfer funds, it reserved approximately $46 million for construction of an alternative to I-505. This amount was later reduced to $23 million when a portion of the project was funded through Interstate highway funds. In all cases, ODOT agreed to pay the local match. Another $13 million was reserved for transportation improvements in northwest Portland. The remaining funds were allocated to:

Banfield Transitway	$15 million
Three regional highway projects	$21 million
Regional transit and highway projects within Portland	$50 million
Substitution for Federal Aid Urban and Federal Aid Primary Funds otherwise available to the metropolitan area	$20 million

Of the estimated $165 million made available from the withdrawal, $142 million was allocated to these projects and another $21 million used for the I-405 extension.

In addition to this allocation, a related "deal" was cut involving the FAUS and FAP funds. In allocating $34.5 million in I-505 funds to projects that would have otherwise been funded with FAUS and FAP monies, the region was offering a trade for state funding of the local Banfield match, $16.1 million. Further, with a cumulative total of $351 million in Mt. Hood and I-505 funds and a potential $38 million in an UMTA capital grant for the Banfield, the region was faced with more grant funds than it could easily match. Since the Interstate transfer funds could not be legally transferred out of the metropolitan area, an estimated $27 million (in 1979 dollars) of FAUS funds were shifted to FAP projects outside the metropolitan area and an estimated $7.5 million in Portland FAP projects were funded with I-505 funds. ODOT also agreed to pay 9 percent (3 percent above the normal 6 percent) of the required local match on the FAUS replacement funds, reducing the local obligation for matching transfer funds to only 6 percent. This was equivalent to the 6 percent local match requirement that would have been provided by local jurisdictions on FAUS funds. Hence, a minimum of FAUS and FAP funds would be spent by Portland in the ensuing eight-year period. The difference between the $20 million reserved for replacing these funds and the estimated $34.5 million foregone was anticipated to come from the automatic inflation of Interstate transfer entitlements. In the absence of entitlement escalation, Portland would draw upon the $50 million reserved.

Goldschmidt's Role

Included within the CRAG resolution distributing the I-505 funds was a redistribution of Mt. Hood monies originally promised to the Oregon City corridor. Tri-Met's systems planning work for the corridor had indicated that a package of transit and highway improvements would be more desirable in the short run than a fixed guideway improvement and that additional funds would be needed for the Sunset corridor transitway. Also contributing to this redistribution were higher-than-expected cost estimates for the Oregon City bypass. By December, 1978, the Oregon City reserve had inflated to $77 million. CRAG redistributed these funds as follows:

Regional transit and traffic improvements for the McLoughlin corridor	$25 million
Sunset corridor transitway	$23 million
Highway 212	$ 5 million
Regional reserve for projects outside of Portland	$24 million

The Involvement of Metro

Subsequent to these decisions, CRAG was replaced by METRO as the regional governing body and MPO. During the year that intervened between the I-505 withdrawal request and its official acceptance by US DOT, METRO made several "perfecting" decisions regarding the allocation of the funds.

For bookkeeping purposes, $14.5 million was transferred from the City of Portland reserve to balance the FAUS/FAP reserve at $34.5 million, with the proviso that any escalation of these funds would accrue to the benefit of Portland's reserve;

Fourteen million dollars in Mt. Hood funds were "temporarily" transferred to FAUS/FAP projects to insure construction would continue on these projects during the wait for I-505 withdrawal approval with the understanding that the funds would be repaid as soon as possible from the approved I-505 monies;

A $1.8 million regional systems planning fund was established for METRO through a prorated assessment of all I-505 project categories and the unobligated Mt. Hood fund, as well as two new categories within the respective withdrawal accounts to fund the reserve with all escalation of funds accruing to the general regional reserve.

US DOT's final approval of the I-505 withdrawal arrived in December, 1979, indicating a transfer amount of $160.4 million. The difference between the estimated withdrawal funds and actual amount attained was spread across all categories, so that each shared equally in the reduction.

One more decision affecting the Banfield corridor was made by METRO in Fall, 1980. At that time, it became apparent that matching funds for the Highway 212 project would not be available and that three other Clackamas County projects would exceed their original estimated cost. Hence, the $5 million originally set aside for Highway 212 was reallocated to other Clackamas County projects and the Banfield Freeway. The Banfield received $2.4 million of these funds.

Two final points concerning withdrawal funding set a context for the financing of the Banfield project. First, to date, with yet unexplained reasons, FHWA has obligated funds for all projects in the metropolitan area from the Mt. Hood withdrawal funds, including those designed to be funded from I-505 funds. This drawdown of Mt. Hood monies regardless of withdrawal linkage has frustrated the region to an extent because it meant that fund flows affect the Banfield project allocations and other Mt. Hood categories first, creating a potential competition for those funds from I-505 projects. This is important because the Mt. Hood funds are contract funds which must be provided by the federal government. This is not true of I-505 monies. Secondly, Interstate withdrawal funds are appropriated annually by Congress. Hence, unlike regular highway funds annually apportioned by formula from the Highway Trust Fund, substitution projects are far more susceptible to the vagaries of the political funding process. Further, those funds annually appropriated are shared among all eligible jurisdictions. This makes it very difficult for large-scale projects to assemble sufficient funding in any one year to assure timely construction progress. Both of these issues have plagued the Banfield project and led to the final local request for a "Full Funding Agreement" for the transit element rather than staged funding as is more typical of withdrawal projects.

Beyond Withdrawals

The discussion of the Portland process of freeway withdrawals has set a backdrop for the discussion of the process of actually receiving federal monies and related aspects of funding the Banfield. The process of allocating the funds obtained in this manner set a pattern that has carried through the entire project. Initially orchestrated by Neil Goldschmidt through the efforts of Doug Wright and Bob Bothman, the identification of projects in the other main transit corridors for the region and related highway construction is generally credited locally as a master stroke of political consensus building. While 140 projects were ultimately identified for funding in this manner, the initial decisions really centered on making sure that all the affected jurisdictions in the region had a stake in the eventual outcome of the Banfield project. As Dick Feeney of Tri-Met has observed, the presence of the transfer funds really got the state and metropolitan area into the LRT approach. The flexibility of these funds allowed their allocation among several different projects to satisfy all highway and transit interest perspectives and avoided the development of a win-lose perspective by the other counties in the region. It also facilitated the ability of the region to approach the state for the local matching money through the transfer of FAUS and FAP funds.

UMTA's involvement to this point had been low key and facilitating. The identification of the LRT project meant that the region was eligible for Section 3 funding under the Urban Mass Transportation Act. The $85.7 million in funds anticipated from this source conformed with UMTA's stated interest in augmenting transfer monies. As a result there were no serious flaws in the metropolitan area's strategic financial thinking. The combination of Interstate transfer funds and Section 3 money provided a package with something for everyone.

Securing the Money

Financing the project became much more trying, however, when it came time to move beyond the thinking stage to the actual solicitation of funds. Problems emerged at three levels: the local, state and federal. At the state level, the issue was the appropriateness of substituting state funding for what was otherwise perceived as a local obligation. At the federal level, the metropolitan area faced two distinct issues: the scarcity of federal funds for capital projects before January, 1981, and the subsequent Reagan policy on "No New Rail Starts." Locally, authorization for funding was confounded by competing projects, fund escalation/deescalation and the complexity of the "bookkeeping" on project authorizations.

The process of soliciting state matching funds began in Fall, 1978. When the decision to select the LRT was made, Tri-Met was not in an enviable financial position. While it had the power to issue bonds to finance capital projects, it had never gone to the market for this purpose. Without a substantial financial track record, the agency felt that it would pay a premium for any bonds issued. Moreover, the approximately $20 million in necessary matching funds could not come from other revenue sources open to the agency. It simply could not raise the money. Working with Goldschmidt and other local officials, a strategy was developed to convince then Governor-elect Atiyeh to include the requisite funds in his first budget proposal to the legislature in 1979. Using the connections already well established with Glenn Jackson and other political officials and the trade of FAUS and FAP monies described above, Atiyeh was convinced to include the matching funds in his budget.

Feeney as lobbyist for Tri-Met and Mark Kelley, City Lobbyist for Portland, spent the legislative session persuading legislators to adopt the package. The metropolitan area's willingness to shift other federal highway funds downstate was persuasive ammunition for the task. However, two major issues surfaced to make their efforts difficult. First was the issue of whether federal

funds were assured to the region. Second was the alignment of the tracks in the downtown area. Since Oregon had yet to receive major funding from the Interstate transfer monies there was substantial legislative uncertainty concerning the reliability of funding. To overcome these concerns, Goldschmidt requested that a federal representative meet with the legislature. An UMTA official visited Salem, spending an entire day with the State Senate. He fielded the tough questions concerning the security of both Interstate transfer funds and UMTA Section 3 grant monies, giving strong assurances that the funds would be available. While not acting as a lobbyist or advocate for the project, his supportive role helped assure state funding.

The downtown alignment created substantial concern for the Portland legislative delegation. Central to this issue was the recently completed Transit Mall. The process of resolving the alignment in the downtown area consumed over a full year of the Portland Planning Bureau's time. The City wanted an along-the-Mall alignment which would effectively serve the full length of the Central Business District. Tri-Met, however, in the face of the original political commitment to the $160 million project costs, had chosen an across-Mall alignment. This was due to cost escalation from inflation and project add-ons, avoidance of rebuilding over 50 percent of the Mall and conflicts with buses running along the Mall streets. This local conflict had spread to the legislative delegation. Moreover, the delegation was very troubled by the potential tearing up of the recently completed Mall streets for construction of the LRT. Assured that the LRT would go across the Mall, the Portland delegation ultimately voted for state provision of the matching money. A resolution passed by the Portland City Council, however, endorsed the cross-Mall alignment but was ambiguous, allowing the controversy to continue for several years.

A far more troubling problem arose from an unanticipated source. At the time the proposal for state provision of the matching funds was moving through the state legislature, Oregon Congressman Robert Duncan was Chair of the House Appropriations Transportation Sub-Committee. Duncan stridently objected to the proposal, disliking the leveraging of federal funds through state monies. He insisted that Tri-Met provide a portion of the local match as a demonstration of its commitment to the project and proof of its intent to successfully see it through to conclusion. This was resented by Goldschmidt and other local officials who had worked hard at building the local political consensus and establishing a funding plan. While the state had accepted the responsibility for the matching monies, Duncan threatened to refuse support on a Congressional appropriation for UMTA funds until Tri-Met agreed to participate financially.

After many arguments involving Feeney and Goldschmidt on one side and Duncan on the other, Tri-Met agreed to capitulate. Working with Drummond and Jackson, Duncan was persuaded to accept a partial provision of local matching funds from Tri-Met in the amount of $4 million with the remainder ($16 million) to come from the fund established by the state legislature. Tri-Met's share later escalated to $13.2 million as total project costs increased. The legislature's generosity had its limits. The $16 million appropriation carried the proviso that no additional funds would be made available. Yet, interest accruing to the State from the $16 million has been made available to the project through the creation of a Light Rail Construction Fund. The fund ultimately grew to $25 million with the Legislature's approval of the local match one week after the Portland City Council selected the cross-Mall LRT alignment. The local funding package was completed in June, 1979.

Changing Federal Financing Commitments

With the local match in hand and Duncan brought into the process with Tri-Met's commitment of funds, attention shifted to securing the required federal dollars. The mutual financing plan required both the availability of Interstate transfer funds through Congressional appropriation and $85.7 million in Section 3 capital monies.

The process of negotiating the UMTA Letter of Intent for Section 3 monies commenced in 1980. Peter Benjamin, of UMTA, visited Portland to discuss the required steps in obtaining Section 3 funds. He asked some hard questions linking back to the technical issues raised earlier in the decision process, and returned to Washington to initiate the Letter of Intent. Subsequently, Ted Lutz, UMTA Administrator, visited Portland evidencing a support to the financing of the package. A draft of the Letter of Intent was agreed to, providing for $85.7 million in Section 3 funds which included a negotiated 12 percent escalation rate for inflation. The remainder of the 1979-80 estimated costs were to come from transfer monies with an initial escalation rate of 8 percent and an assumed later rate of 12 percent.

While these negotiations proceeded, the local area was not sure that the process would terminate favorably. Despite Goldschmidt's presence as Secretary of Transportation, metropolitan officials were not sure that they could effectively thread the federal process. Most threatening in this regard was the question of whether UMTA had the budgetary authority to issue the Letter of Intent which required Congressional authorization. This authorization was included in the proposed Surface Transportation Act of 1980.

The legislation, however, was being held up by protracted Congressional debates over operating assistance formulas and Section 504 requirements for providing service to the handicapped and elderly. Duncan had been active in the latter area working closely with Representative James Howard, Chairman of the House Public Works Committee. Together, they had succeeded in attaching a rider to the US DOT appropriations bill permitting local discretion in the provision of services to the handicapped and elderly. While this passed, it produced significant internal Congressional conflict which affected the passage of the Surface Transportation Act. In the

absence of authorizing legislation, UMTA could not issue the Letter of Intent. In the meantime, the presidential elections of 1980 produced a Reagan victory. While the Reagan transition team accepted the operating assistance provisions of the proposed Act, the process of passing the legislation was slowly grinding to a halt in anticipation of the end of the session and a new Administration and Congress. The locals began to fear the demise of both the legislation and the project.

Duncan continued to push for both passage of the legislation and local efforts to lobby for passage. However, by this time he was a lame duck having lost his bid for re-election. The Portland area turned to Senators Bob Packwood and Mark Hatfield for assistance. Despite their aid, the legislation failed to pass leaving only the option of attaching authorization for the Letter of Intent to the appropriations bill for US DOT, which was still pending in the Senate. By accepting a Senate amendment that the Letter of Intent be issued, Duncan managed to get authorization included in the final appropriations measure. Duncan then called Goldschmidt and asked him to issue the Letter. Goldschmidt refused, claiming that he lacked authorization to do so. Duncan referred to the recently passed Congressional rider and pointed out that the appropriations measure required him as Secretary to combine and accumulate unobligated funds from various sources and, hence, provided the authorization to issue the Letter. Without any assistance from UMTA, the Office of the Secretary identified the requisite funds and authorized issuance of the Letter of Intent on December 20, 1980.

While the Letter of Intent had been issued, it did not guarantee funding. Arrival of the new Administration opened up a radically different ball game. A Letter of Intent provides authorization to proceed with construction and a promise of future federal funding. The metropolitan area, however, did not have sufficient local monies available to make a meaningful start on construction without federal appropriations for the project. Further, the new Administration immediately promulgated a policy of no new rail starts and proposed a budget for UMTA with this in mind.

While the procurement of vehicles had been initiated early in 1980, UMTA had not authorized the contract to be let and no other construction had commenced on the project. In effect, the Banfield project was in limbo concerning its status as a "new" start. The Administration insisted that the Banfield was a new start and therefore would not support appropriations for the project. This threw the Portland effort to secure funding back to square one, and led to the development of a new political strategy.

The local political consensus became more important. Feeney created a task force of local technical officials that met frequently to discuss the status of events and hatch strategy. The key thrust of this effort was to maintain a united front and convince the Administration to reassess its policy stance. Responsibility for leading the effort rested with Rick Gustafson, Executive Officer of METRO; together with Portland's Mayor, Frank Ivancie; Fred Klaboe, Director of ODOT; and Tri-Met's Gerard Drummond. They turned for assistance to Oregon's Representative AuCoin and Senator Hatfield. AuCoin had joined the House Appropriations Committee, Sub-Committee on Transportation and Hatfield had become Chairman of the Senate Appropriations Committee. The existence of the Letter of Intent produced a lot of confusion in the first couple of months of 1981.

AuCoin was supportive throughout the process, including his sponsorship of $8.9 million in Section 3 money in a 1981 Supplemental Appropriation measure pending before the House. The leverage behind this effort was an UMTA need for Supplemental Funds in order to maintain a steady flow of cash to projects then under construction. However, inclusion of the $8.9 million in the final version of the measure would have been construed as an appropriation for a new rail start.

On the Senate side, Hatfield was confronted by a dilemma. As a Republican he was a key man for the Administration on the Appropriations Committee. Yet, as Susan Long, a Hatfield staffer on the Appropriations Committee, observed: while he felt committed to supporting the President, he also believed there was a federal obligation to Oregon. The stalemate on the House side shifted attention to the Senate. In Long's view, the character of the project as a dual transit/highway effort and the strength of the local commitment provided an incentive to Hatfield. The Portland officials maintained that without the regionwide highway money included in the Interstate transfer appropriation request their local consensus would deteriorate, including support from Salem which was receiving Interstate transfer monies for a highway project. Hence, the appropriation for the Interstate transfer funds was critical, and Hatfield felt obliged to deliver on these funds to support local officials and interests.

To maintain the local support for funding, Feeney used the Transportation Group of local officials. The task facing the group was to orchestrate local representation before Congress to make sure that the local consensus held up and overcame the resistance of UMTA and Office of Mangement and Budget (OMB) to the inclusion of Section 3 money. Working with Hatfield, the group lobbied intensely with the Oregon delegation and to gather other support in Congress. Former Representative Duncan was hired as a lobbyist in Washington to work with local representatives on testimony and lining up support. The group decided to make the Governor their official spokesman and representative, demanding that all communication concerning the final fiscal arrangements be channeled through his office. Finally, the group provided critical support to Hatfield in his dealing with the Administration.

The focus on the 1981-82 Appropriations measure proved to be an asset to the Portland effort. According to Long, most members of Congress were not excited about the problem of transit and new starts since the great majority of them did not have that type of project in their

districts. The linkage to road funds, however, made Hatfield's job easier since most Congressmen are quite familiar with the political impacts of obtaining road funds. Consequently, when Atiyeh, representing the Transportation Group, cogently put the problem to Hatfield concerning the difficulty of proceeding without Section 3 monies, Hatfield was receptive to reopening the negotiations with DOT.

Finally, METRO suggested an idea to Tri-Met for answering UMTA's objections to Section 3 money for the project. The Administration had originally adopted the no rail start policy to avoid substantial appropriation requests for capital outlays in the 1982 budget and in subsequent budget years. The gist of the proposal was that Tri-Met would accept funding of the project from Interstate transfer funds if US DOT would permit the reallocation of $76.8 million (the original $85.7 million less the $8.9 million AuCoin appropriated) originally promised to the Westside corridor to the Banfield project. In return, Portland would accept a cashflow funding process similar to FHWA's approach to funding highways. US DOT would substitute a Letter of Intent for the Westside in the amount reallocated to the Banfield which would be used for non-rail transit projects. The Letter of Intent for $76.8 million would protect local road projects and the cash flow arrangement would minimize initial demands on appropriations, spreading them out over several years as the project proceeded through construction. It created a dollar-for-dollar trade in which there was no loss or additional expense to any project in either corridor.

Long and Administrator Teele arrived at a working agreement on this approach which was proposed to Secretary Lewis. Lewis and Hatfield then went to the Senate Appropriations Committee in April, 1981 where Lewis would unveil the proposal. This committee effort avoided the appropriation of funds for new rail starts and provided necessary funding for the Banfield construction effort.

It all came down to the passage of the FY 1981 Supplemental Appropriation Bill. AuCoin agreed to abandon his request for year-to-year funding for the project if there was a Full Funding Agreement, and the Westside was held harmless through a Letter of Intent to replace the funds transferred to the Banfield. Hatfield supported the arrangement. Further, he supported passage in the Senate of the supplemental appropriation with $8.9 million in Section 3 money and $5.7 million in Interstate transfer funds for the LRT.

Earmarking of transfer funds for Portland seemed to bring the parties to a final agreement. Teele had Portland assurances that a cashflow and transfer funding approach (with the exception of the $8.9 million which made it through Congress) for the project was acceptable. In return, AuCoin and Hatfield asked Teele to honor the original Letter of Intent granting authorization to proceed but with a different funding scheme and a new Letter of Intent for the Westside. The final Bill was signed December 26, 1981 bringing to a close the direct Congressional phase of the project.

Subsequently, UMTA visited Portland to negotiate the new Letter of Intent and Full Funding Agreement. Long had conferred with Teele followed by several meetings among Teele, Duncan and Long to prod the process along. While progress was being made, there was still a pending threat to local road projects. UMTA was reluctant to fund more related road work from its allocation of the funds than it had to, and wanted FHWA to assume responsibility for the funding. While the local people felt the project was all related, it made a difference to the Washington agencies as to whose budget was being tapped. If they were successful in reallocating the road work to the FHWA side, this would have meant that the Banfield widening would compete against other regional highway projects for each annual appropriation. Moreover, UMTA seemed to prefer designating as little of the project as transit as possible, putting a greater level of responsibility on FWHA for funding and oversight.

UMTA drafted a Full Funding Agreement which reflected these concerns. While some within Tri-Met were willing to accept this, it would have created substantial problems for the state. Moreover, the legislation directing issuance of the agreement had described the project as a transit project. Hence, Tri-Met rejected the proposal, leaving it to Bay and Bothman to work out an acceptable allocation of road versus transit work. An arrangement was proposed to UMTA which stipulated that only $26.6 million in road work would be accomplished under the highway portion of the transfer funds and that this would be the last appropriation of road money from the FHWA share of the project. UMTA still refused, however, to let the whole project be called a transit project and wanted FHWA to provide $11 million annually. This produced some concern for ODOT, since the lack of future Interstate transfer funds might allow transit to suck the transfer pot dry. Hence, they objected to this proposal.

In January, 1982 an agreement was concluded with UMTA that promised that there would be no more than $26.6 million in highway money for the project and that UMTA would treat the balance of the project as a transit project. However, the draft Full Funding Agreement did not fully reflect this consensus. It stipulated $206 million for the LRT portion of the effort, but made no mention of $103 million for roads and the Banfield widening effort. Tri-Met again contacted Long. She was persuaded to call Teele to get an agreement. She told Teele that Portland could not proceed without the UMTA monies for the highway project elements and could not wait any longer. The final agreement from Teele then arrived in Portland on March 27, 1982 when he attended the groundbreaking ceremonies for the Ruby Junction Maintenance Facility.

Metropolitan Bookkeeping

The final element of the financing story is simply the accounting dimension. With the presence of several dif-

ferent funding sources, inflating and deflating federal funds and multiple commitments of funds, the tracking of financial commitments and revenues has proven extremely difficult. The thread of opportunistic financing which flows throughout the local political process provided some of the most troublesome local issues.

Contextually, responsibility for allocating financing from federal funds lies with several agencies. FHWA bears responsibility for federal highway monies apportioned from the regular Interstate, Primary and Urban programs. Within the metropolitan region, ODOT spends these funds after coordination with METRO. UMTA bears responsibility for transit funding under the Section 3 program. This is also coordinated through METRO. Interstate transfer funds can be the responsibility of either agency depending upon the legislative appropriation or substitute project designation. And, again, these funds are locally coordinated through METRO. Linking any of these funds to a specific project requires a federally approved regional transportation plan (prepared by METRO) and a regional priority decision (coordinated through METRO's Joint Planning and Advisory Committee). As the federally approved MPO, METRO oversees the annual use of federal funds and must authorize the allocation and expenditure of funds for given projects. Since there is always a waiting list for funds, METRO maintains an ongoing priority list of eligible projects. The priority of these projects can be affected by a number of factors including technical readiness to proceed, local matching fund availability, political factors and the need for additional funding on projects under construction. The dollar commitment to the Banfield has made METRO's coordinating role particularly complicated. It has had the responsibility of coordinating the preferences and wants of all local participants and monitoring the availability of federal funds to insure that all commitments for projects throughout the region have been met.

In this context the Banfield's funding ups and downs have constantly threatened the political consensus of the region. A shift in funding from one federal program to another raises the potential of jeopardizing other projects in the region. Hence, METRO has constantly sought to adjudicate the regional funding proposals to maintain the integrity of commitments. Concomitantly, federal inflation/deflation elements have also jeopardized fiscal stability. During the period 1976-1982 Interstate transfer entitlements fluctuated with the cost to complete estimates for the withdrawn segments. During much of the period inflation was very high, producing significant new potential revenues for metropolitan areas. So long as the trend was always inflation, the issue was how to allocate the new monies when Congress appropriated them. In the early 1980's the recession sent the trend in the other direction, reducing available monies for urban areas. In Portland this put significant pressure on METRO and all local officials since the central commitment to complete the Banfield meant that the financial flexibility lay with other small projects in the region, namely local highway projects which had been used as consensus-building inducements. Tracing the full range of "accounting" issues associated with the Banfield is a complex chore. Fortunately, Andrew Cotugno of METRO has successfully completed this task. His briefing memo is attached as Appendix F and is summarized below.

Initially, CRAG allocated approximately $69.6 million in Mt. Hood money and $15 million of I-505 funds to the Banfield project. This $84.6-million-dollar fund had, by mid-1980, inflated and been added to to create a $127.6 million authorization of Interstate transfer funds for the Banfield. In late 1980, during the negotiations for the first Full Funding Agreement the assumed project funding picture was:

	Assumed 1980 Cost & Funding	"Assumed" Escalation @12%	Proposed Funding
Highway Funds:			
(e)(4)-Highway	$ 66.8m	$16.5m	$ 83.3m
Transit Funds:			
(e)(4)-Transit	60.2	25.8	86.0
Section 3	60.9	24.8	85.7
Total	$ 187.9m	$67.1m	$255.0m
Total w/Match	$225.5m		$306.3m

Key to this initial funding program was a heavy reliance on escalation and inflation assumptions. The initial federal commitment was to a $306.3 million project including inflation. All of the (e)(4) money was "assumed" to inflate from 1980 to 1985 by $42.3 million. The initial Section 3 proposal of $85.7 million including $24.8 million in inflation.

By the issuance of the Letter of Intent on December 22, 1980, the (e)(4) entitlement had escalated by $4.4 million. This brought the total federal (e)(4) commitment to $259 million (including assumed inflation).

The no-new-rail-starts policy produced the revised funding proposals discussed earlier and shifted the initial funding to the following:

	Revised 1980 Cost & Funding	"Assumed" Escalation @12%	Revised Funding Program
Highway Funds:			
(e)(4)-Highway	$ 27,000,000	$ 1,500,000	$ 28,500,000
Transit Funds:			
(e)(4)-Highway	39,800,000	15,000,000	54,800,000
(e)(4)-Transit	60,200,000	25,800,000	86,000,000
Section 3	60,900,000	24,800,000	85,700,000
Total	$187,900,000	$67,100,000	$256,363,000
Total w/match	$225,500,000		$306,300,000

The changes were based on a shift of highway (e)(4) funding to transit funding (on the basis that LRT construction caused a portion of the highway relocation). This produced no change in total cost or project scope. It did result in more of the project being folded into the Full Funding Contract, carrying the "assumed" inflation along with it. Additionally, the 1980 Banfield Letter of Intent was traded for (e)(4) funds allocated to other regional projects, mostly Westside Corridor funds. As part of this,

the $8.9 million of Section 3 monies sponsored by AuCoin were appropriated for the Banfield and $76.8 million were "re-issued" to the Westside Corridor in a new Letter of Intent. An inflation reserve of $25 million was set aside to allow the funds promised the Westside to "escalate" as if they were still (e)(4) monies. This reserve was part of the $76.8 million for the Westside.

During negotiations for the Full Funding Agreement, UMTA increased the (e)(4) funds for the project by $4.4 million to account for inflation. This increase affected the assumed inflation, not the locally authorized amount for the project. This latter point is particularly significant. While the Full Funding Agreement authorized a federal commitment of $268 million from all federal sources, the local authorization from METRO at that point was only $187.5 million. The $80 million discrepancy was a product of the assumed escalation in funds initially established in the first Letter of Intent that had not materialized. Central to this discrepancy was the available (e)(4) funds. Since they had not met the escalation expectations of local officials, fully funding the Banfield from this source would mean taking monies from other projects to which (e)(4) funds had been promised.

Some of the discrepancy was eliminated by convincing Congress to approve transfer of the inflation reserve from the Westside non-rail projects to the Banfield. Approximately $20.1 million was thus made available to the Banfield. This shift did not increase the federal commitment, it simply shifted relatively unattached funds from other parts of the metropolitan area to the Banfield effort. At the same time Congress approved an additional $5 million grant to Tri-Met for downtown improvements related to LRT. In particular, the loop turn-around included mall-like improvements on only one side of Morrison and Yamhill streets throughout the heart of downtown. The downtown merchants felt that such improvements on both sides of the street would greatly enhance business. Hence, they agreed to the formation of a local improvement district which raised the $1.1 million in matching funds for the grant approved by Congress. In both Congressional actions, Senator Hatfield and Representative AuCoin played important roles.

The difference between the total federal and local commitments still existed, however. Congress had indicated in 1982 an intent to fund this discrepancy with Section 3 funds if Interstate transfer authorizations were not available locally. The intent, however, was just an unfunded promise. The passage of the Surface Transportation Act of 1982 finally resolved the issue of the funding source. The Act eliminated the escalation provision of the

Downtown merchants created a local improvement district to help pay for downtown improvements such as these cobblestones being installed between the LRT tracks

SOURCE *Tri-Met*

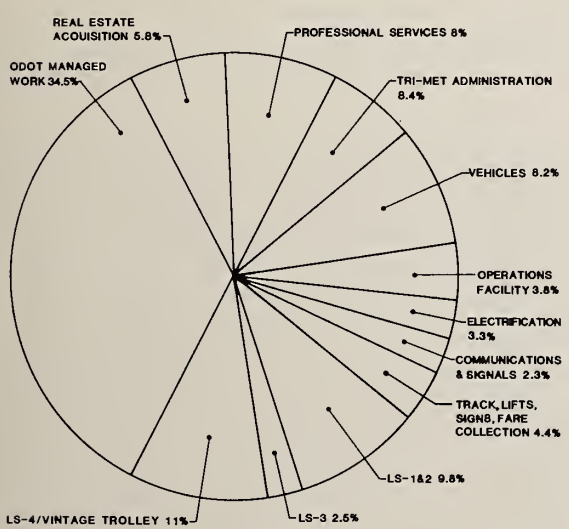
Interstate transfer funds, rolling all entitlements back to 1980. This eliminated all hope of realizing any of the assumed escalation. Congress appropriated $44.25 million in new Section 3 funds to finance the difference between the federal Full Funding Agreement authorization and the local authorization. With the $20.1 million already made available from the inflation reserve this brought local and federal commitments into balance.

With a firm federal commitment to fund the costs of the project, the only remaining issue is the appropriation of sufficient funds to finance the project on schedule. If sufficient federal funds are not available in fiscal year 1985 to finance construction, Tri-Met intends to use some of its Section 9 funds to finish construction. These would be replaced by Section 3 appropriations when they become available.

The final funding picture is:

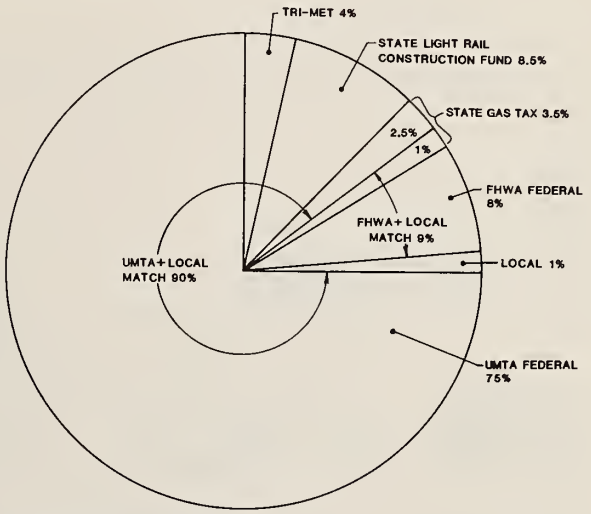
Local Allocation and Federal Funding Commitment:	
Highway (e)(4)	$ 26,584,501
Transit (e)(4)	146,870,375
Section 3	
Original	8,900,000
Inflation Reserve	20,150,000
CBD	5,000,000
New Start	42,698,353
Section 9	6,160,000
Total	$256,363,229
Total w/Match	$307,700,000

Unused portion of Full Funding Contract (New Start Section 3+ Match) = $20,008,624.



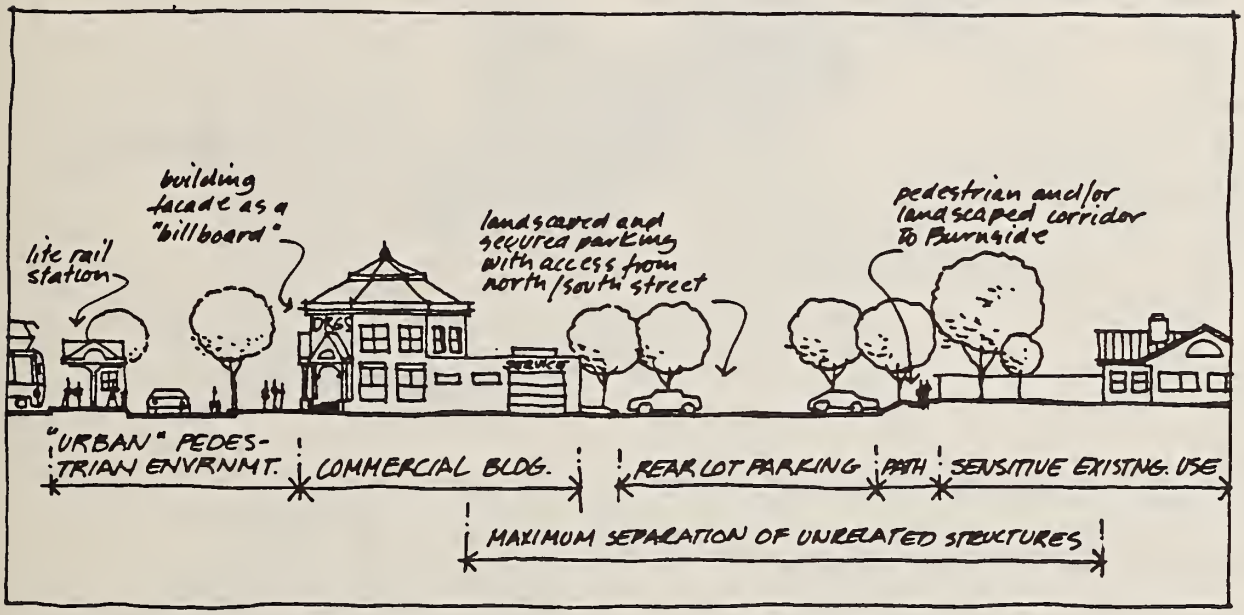
Major spending categories

Clearly, the local area benefited substantially from its creative use of multiple federal funding programs. It is also clear, however, that much of the funding bind was created locally. By assuming greater escalation than ultimately proved to be true, the Interstate transfer funds were overcommitted locally. It remained for a successful metropolitan effort to secure additional federal monies to eliminate the problem. Federal policy shifts and political commitments also influenced the process by constantly altering the rules of the financing mechanism. From a comprehensive perspective, the entire financing process reflected both the inherently political process of satisfying all participants and the general opportunistic behavior of local officials in exploring both technical and political avenues for funds.



Banfield funding source

Chapter 8
Related Activities, Actions and Anxieties



A major planning issue on Burnside Street was how to fit Light Rail into existing single family communities
SOURCE: *Zimmer · Gunsul · Frasca Partnership*

There are a number of ancillary considerations that affected the process of metropolitan decisionmaking for the LRT. Of these, the most important have been the relationship between land-use planning and transit, the use of joint development, the impact of the Transit Mall on the downtown alignment decision and the Westside corridor. With the exception of the downtown alignment decision, each of these issues or concerns has helped set the general context within which the LRT decision was made. The downtown decision is unique only in that it alone was more of a threat to the process rather than an opportunity to be exploited. In general, the entire LRT decision process, including the Mt. Hood withdrawal, can be seen as more land-use rather than transit based.

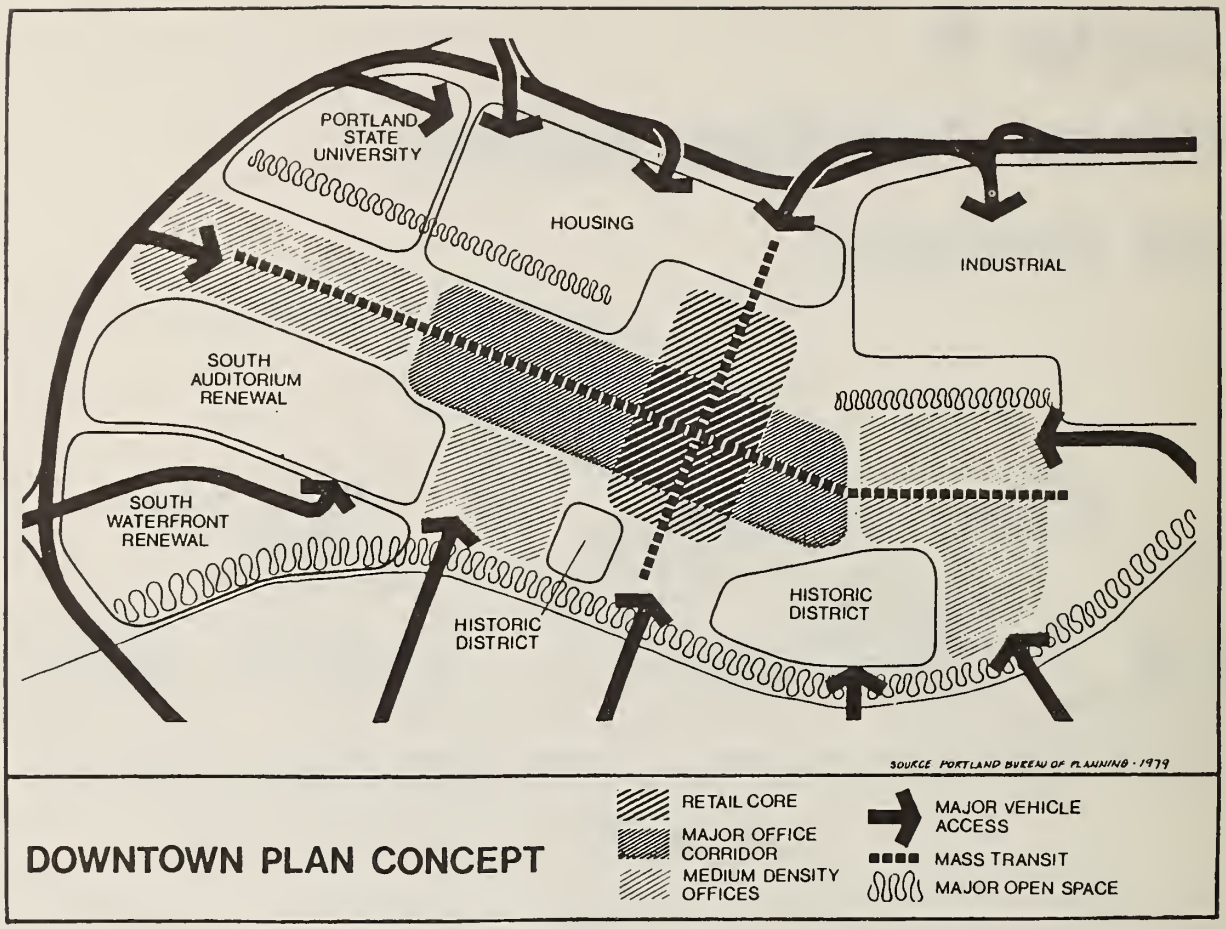
Transit and the City

The context of the Mt. Hood withdrawal as an inherent land-use decision concerning the future of the Portland CBD and the impact of highways on the metropolitan area provided a convenient vehicle for raising the visibility of the general land-use planning issues facing the metropolitan area. Senate Bill 100, establishing the State's land-use planning process, came into existence in 1973 at the high point of the Mt. Hood controversy. While full operationalization of the land-use planning process did not occur immediately, it did serve as a framework for developing metropolitan transportation alternatives. This reinforced much of the analysis concerning corridor selection, mode preference, station locations, track locations, and development, not only as a mobility alternative to the highway system but also as a major force shaping the future of the metropolitan area.

Portland has been an early leader in this effort, undertaking a number of studies which have materially affected its approach to transit. Chief among these have been the City's Downtown Plan, Arterial Streets Classification Study and the Downtown Parking and Circulation Plan. All three share a commitment to improving the downtown as a major metropolitan resource and center of urban life.

Downtown Plan

The Downtown Plan, adopted in 1972 before the creation of the state's land-use planning process, established both the general commitment to the revitalization of the CBD and the specific initiative which led to the development of the Transit Mall. The Plan provides a statement of goals and objectives intended to serve as a framework for



The downtown plan for Portland focuses transit along the retail and office corridors
SOURCE: *Portland Bureau of Planning*

making land-use decisions. Its goals emphasize the enhancement of downtown as the retail, office, cultural and entertainment center of the metropolitan area. Calling for the provision of open space and use of the Willamette River as a community focus, it also seeks to increase the number of residential units in the downtown area. From a transportation perspective, the Plan seeks an emphasis on balanced transportation mode uses which will support other downtown goals. Also emphasized are more efficient use of right-of-way and vehicles, and a reduction in reliance on the automobile and increased use of transit. In terms of the latter, the Plan puts a high priority on the development of a mass transit system which is fast, economical, convenient, comfortable, quiet and non-polluting. The Transit Mall became a major implementation of this goal as a centerpiece for improved transit and pedestrian use of the CBD.

Arterial Streets

Prior to the adoption of the City's comprehensive plan, the Arterial Streets Classification Study served as the prinicipal transportation policy instrument. Begun in April, 1974, it was adopted by the City Council in June, 1977. The Study guided investments in transportation improvements and provided a framework for solving transportation problems as they arose. It also served as a means for guiding private development as it occurred adjacent to arterial streets within the city.

City streets were grouped in two classifications, traffic streets and transit streets. Separate facilities were designated for trips of different speeds, volumes and length. The classification process provided a model for high-speed, through traffic that would discourage use of neighborhood streets and direct local traffic away from expressways. Also addressing pedestrian, bicycle and trucking classifications for streets, the Study strove to provide a framework for improved efficiency of the overall transportation system and the livability of Portland neighborhoods. Inherently a land-use planning instrument, the policy as adopted called for planned use of land around transit stations to reinforce existing development and enhance station access. A one-fourth-mile radius around transit stations became the focus of increased employment and housing development.

Parking and Circulation Policy

Downtown parking and circulation have been increasingly important issues in the development of transit alter-

natives. The Downtown Plan required a method for supporting its goals in terms of increased transit usage and targeted auto access. Adopted in February, 1975, the Downtown Parking and Circulation Policy provided a means for implementing this part of the overall downtown goals. The Plan provides guidelines for the development of efficient, adequate and convenient parking which supports and encourages desired land uses, zoning and downtown policies. In particular the following policies received emphasis:

> A base case using the regionally adopted Interim Transportation Plan population and employment projections for 1980 in which no shifts in development were attributed to the LRT;
>
> A revised land-use case which reflected the presence of LRT and a progressive program of transit-supportive policies to focus development around transit stations in order to maximize the benefits from a fixed-route transit system.

Both cases were somewhat "ideal" in character. However, the opportunity to portray their relative impacts provided ammunition for affecting the outcome of the analysis for the corridor. Further, the report reflected Tri-Met's entrepreneurial thinking in terms of its effort to support the LRT alternatives and take advantage of the land-use planning process. As the report's summary indicates:

> The impacts of imposing LRT on each land-use case are chronicled in the second section, drawing from national experience and materials provided to Tri-Met by Multnomah County and the City of Portland. A choice for LRT becomes a choice for more intensive development in the corridor, independent of government policies, in that some speculative development around stations will occur with or without affirmative action by local jurisdictions to shape it.
>
> A number of conclusions are reached within the main body of the report which, when viewed together, support the basic contention embodied here. Simply stated, given a decision to build light rail, a complementary package of positive and deliberative policies to shape and direct development patterns will be necessary to guarantee development which is consistent with the transportation investment. To realize this end, a broad-based, public-private partnership built on intergovernmental cooperation and a reassessment of existing development trends on the East Side is required (p. 1-2).

While the report acknowledged that the required land-use assumptions to account for the LRT investment would not have to be significantly different from the "recognizable norm," it did assert that the relationship between land use and transit required an affirmative recognition by the affected jurisdictions.

> The case being made is that the introduction of major new transportation assumptions requires new land-use assumptions. The two are too inextricably linked to do otherwise. The revised land-use case presented here addresses the need for coordinated land-use and transportation planning and investments to realize the best possible result.
>
> A variety of creative implementation mechanisms, including Transportation Corridor Development Cooperation, are potentially available to encourage the level of development desired. Along with incentives for development in station areas, some disincentives to development outside the corridor would be necessary (p. 3).

The report identified the following impacts of the revised land-use case:

- The conversion of a considerable portion of the corridor's vacant land and some lower value structures to higher intensity uses (multiple family, commercial, office);
- A rapid conversion to higher density uses within the corridor;
- A shift of multiple-family development into the LRT corridor;
- A reduction in the growth rate outside the corridor;
- The need for significantly improved urban services within the corridor;
- A general positive impact on property values;
- A total reduction in energy utilization from development in an energy-efficient area;
- A reduction in automobile use and ownership;
- A reduction in public costs associated with both development and environmental pollution.

Building on the already existent push toward integrating land-use and transportation planning, this effort confirmed the desirability of a large transit investment in terms of leveraged development potential. The assumed payoff of this approach was used to justify the LRT in the DEIS and FEIS. The DEIS observes:

> All project alternatives, with the exception of the No-Build and Low-Cost Improvement options, generally conform with local plans and policies regarding land use and transportation. The Light Rail Transit alternatives on either Burnside Street (5-1) or Division Street (5-2) offer the greatest potential for secondary land-use changes which concentrate population and employment in East Multnomah County in support of a more efficient public transit network. This stems from the extension of a fixed rail service into Gresham and associated development potentials around the transit stations (p. 8-9).

The FEIS echoed these initial assessments:

> In particular, the project is consistent with major regional goals of: (1) improving the flow of goods and services and strengthening the local economy, (2) increasing the viability of the Portland central business district and enhancing its role as a regional center, and (3) concentrating growth where it can be better served by all public services, including transit.
>
> Access will be improved along the entire Banfield Transitway Project Corridor; therefore, it will provide a focus for more efficient and orderly regional growth (p. 6).

While the FEIS did not anticipate major land-use shifts in Portland proper, it did anticipate major changes in development patterns in East Multnomah County where a shift to higher densities for multi-family, office and commercial developments was forecast. Indeed, early in the LRT decision process the County combined its advocacy of the project with its land-use planning process.

An early leader in the development of comprehensive land-use plans, the County adopted its plan with Burnside identified as a major transit corridor. This supported the Tri-Met process.

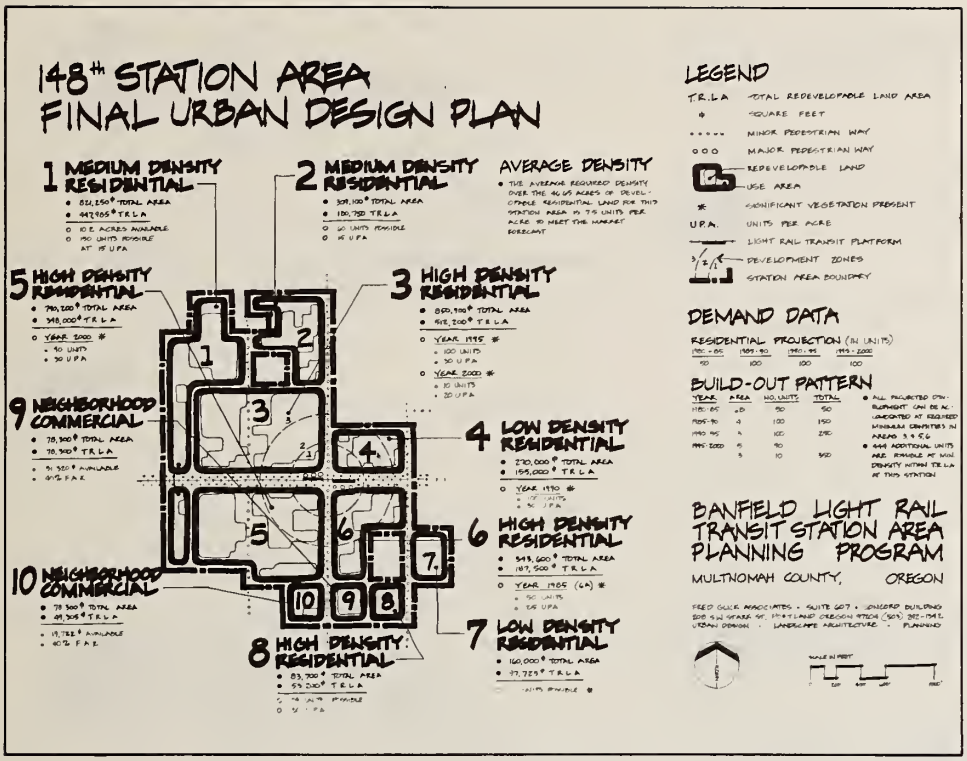
With this groundwork in place, the land-use relationships for the LRT served as a major catalyst for a joint development planning process. The exploration of alternative mechanisms for implementing the approach was funded by several UMTA grants, beyond those directly attributable to the alternatives analysis process. Specifically, UMTA provided funds for the following studies:

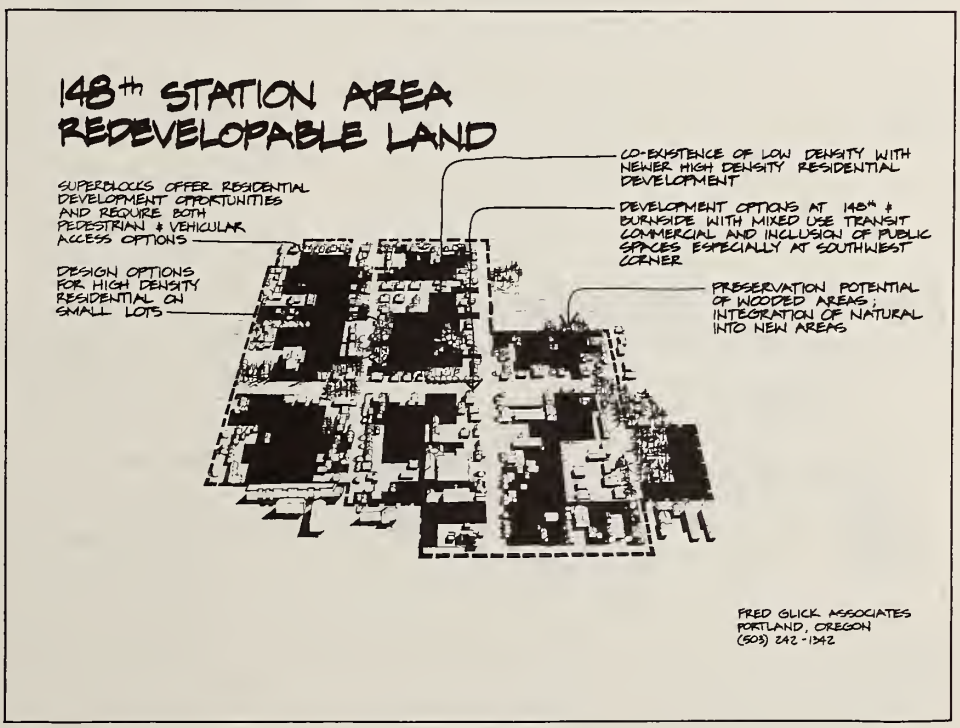
- Transit Corridor Development Cooperation Feasibility Study, August, 1978 through October,1979, $65,000;
- Banfield Market Impact Analysis, August, 1979 through June, 1980, $50,000;
- Transit Station Area Planning Program, November, 1979 through June, 1982 funded from monies in LRT grant (Interstate transfer), $1.2 million;
- Non-Profit Cooperation for Joint Development, September, 1982 through mid-1983.

Transit Station Area Planning

The intent of these efforts was clearly to operationalize established joint development expectations. Most noteworthy was the Transit Station Area Planning Program (TSAP) which established the most likely areas for immediate and long-term development. As a result of this effort, one station was moved on Holladay Street at the request of the Lloyd Corporation, a major land owner, situating it adjacent to the site of a planned office tower. The result will be higher ridership on the system and new development integrated with the LRT. Further accomplishments of the TSAP effort are detailed in the following extract from its Final Report:

> The transit station area planning program (TSAP) was established to capitalize on the potential for development induced by the $225 million light rail project. Between October, 1980 and March, 1982 TSAP focused on the Banfield LRT Corridor to identify how the light rail line would affect the development, redevelopment, or conservation of neighborhoods along the route. The major results of TSAP can be summarized in three areas:
>
> 1. The public sector has defined its objectives for development around the stations, prepared plans consistent with the market forecast, and is putting those plans in place. The major objective of TSAP, to ascertain the development around the LRT stops, has been established, plans prepared, zoning codes modified, and all this is being put into place to guide development.
> 2. The development community is now generally optimistic about the development impact of light rail. The Lloyd Corporation and the Gresham Boosters are two examples. As a direct outgrowth of TSAP, the Lloyd Corporation has taken a number of specific actions to capture the development opportunities they see in Light Rail. Lloyd Corporation's next major office building is planned to be adjacent to an LRT stop for which they successfully sought the relocation. Finally, they may invest up to $500,000 to create a strong connection between their retail mall and the Holladay Park LRT stop. In Gresham, the Boosters are significantly increasing their dues to hire a full-time manager to implement the new Gresham Central Area Plan prepared as part of TSAP.
> 3. Public sector investment decisions have been made to reinforce the LRT. The genesis of the decisions to seek State funding and install dry sewers with LRT construction, to locate a convention center at the Coliseum, to upgrade the level of improvements along the downtown LRT alignment, and to create a private, non-profit development corporation to promote joint development along the Banfield Corridor, all emanated from TSAP.
>
> **City of Gresham**
>
> The City of Gresham is taking advantage of the Banfield LRT to redevelop 'and reorient its downtown. The Gresham stations provide some of the most dramatic opportunities outside the downtown core in Portland. Gresham has more vacant land in its core than the rest of the entire corridor combined, and importantly, the market to support its development. Gresham produced a new plan and development standards for its 600-acre corridor area as part of TSAP.
>
> The plan envisions an intensification of office and multiple family residential around the LRT stops, while reinforcing the city's historic retail core. With the process of totally re-evaluating the central area completely, the Gresham Boosters are mobilizing to implement the plan. The Boosters have significantly increased their dues to hire a full-time manager to implement the new central area plan. Central area development will be guided by new development standards and three new land-use categories developed in the TSAP process to reinforce the link between LRT and the existing Gresham Corridor.
>
> Planning for transit station areas and Gresham's urban renewal program were integrated in July, 1981. The City formed a redevelopment commission as a key implementation tool to guide the revitalization of Gresham's core. The Renewal Agency was subsequently referred to the voters and defeated.
>
> **Multnomah County**
>
> In east Multnomah County the majority of the development around LRT stops will be medium-density residential. In fact, market demand exists for 20% of all residential development east of the Willamette River in the county to occur in a five-minute walk of light rail.
>
> Through the TSAP process, Multnomah County has taken a number of specific steps to guide development around the LRT stops on Burnside. The first step was to amend the County's Comprehensive Plan to raise the minimum for high-density residential development to 20 units per acre instead of 8 per acre for some station areas. With interim controls in place, the County began the task of preparing new zoning and development standards for the areas around LRT stops.
>
> On Burnside Street light rail passes through low-intensity suburban development. The challenge in creating a new zoning code was to guide development in such a way that it would create a "sense of place" at the LRT stops, and allow a scale and intensity of development that could be compatible with the existing single-family neighborhoods. The new zoning code and development standard are now being re-

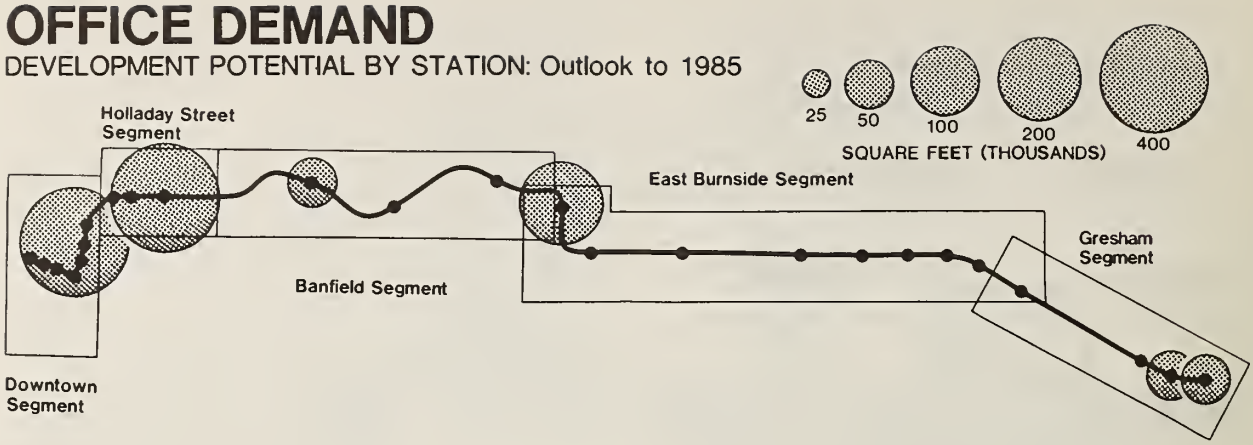




SOURCE: *Fred Glick Associates*

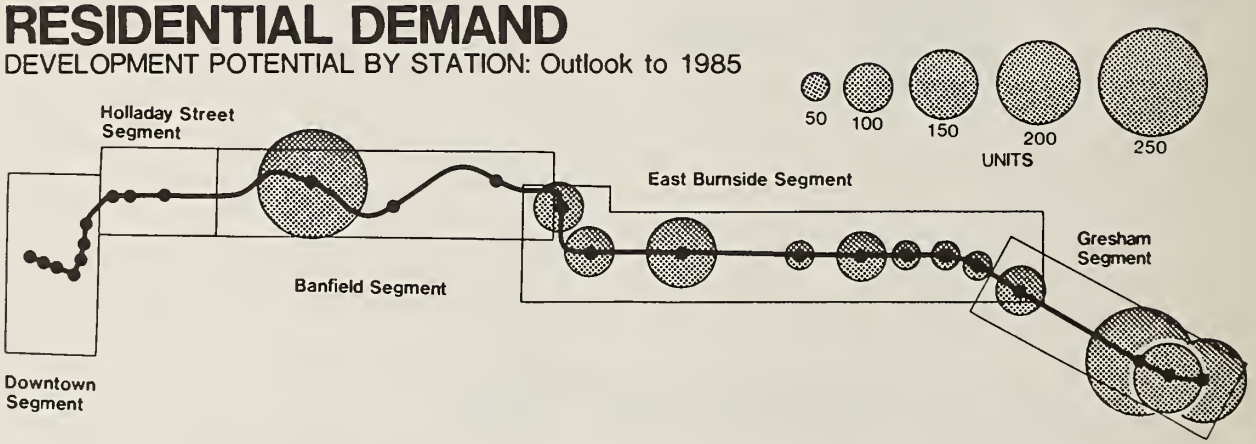
OFFICE DEMAND

DEVELOPMENT POTENTIAL BY STATION: Outlook to 1985



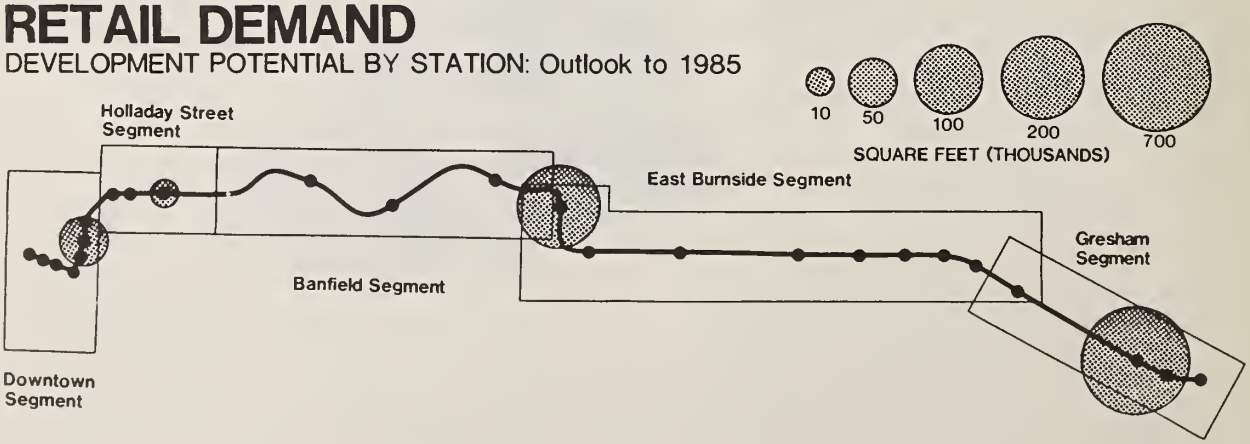
RESIDENTIAL DEMAND

DEVELOPMENT POTENTIAL BY STATION: Outlook to 1985



RETAIL DEMAND

DEVELOPMENT POTENTIAL BY STATION: Outlook to 1985



Banfield Light Rail line will have the greatest effect on development at the two ends of the line, in downtown Portland and the Lloyd Center and at its terminus in Gresham

SOURCE. *Economic Research Associates*

viewed by County staff as prelude to their implementation.

The only major constraint to achieving this development is lack of sanitary sewers. In the Fall of 1982 the State Emergency Board appropriated $3 million to construct dry sewers under Burnside Street at the same time that the light rail is constructed—a savings of over four to five million dollars from installing sewers after LRT is operating. Without TSAP, sewers would not have been provided with light rail. The initial design work, costing, identification of benefits, and the forum to bring all the affected parties together emanated from the TSAP process.

City of Portland

In the City of Portland TSAP planning efforts have focused on the areas where light rail will have the greatest impact: the three Holladay Street stations, Hollywood, and the downtown.

The Hollywood Development Program builds on the opportunities afforded by light rail and more than $2 million in federal road funds that have been earmarked for the district. The plan seeks to encourage higher density development that will support and enhance the existing business district and residential areas; and encourage new development to capitalize on the public investment in transit. The Portland Planning Commission has endorsed the Hollywood Development Program in concept and passed it on to the Portland Development Commission for implementation.

Along Holladay Street, TSAP staff have been working closely with the major landowner, the Lloyd Corporation, to simplify zoning along the LRT corridor. The outgrowth of this effort was the rezoning of the corridor to community/commercial, the City's most transit-supportive zoning classification. As a direct outgrowth of this process, the Lloyd Corporation has taken a number of specific steps to capitalize on the development opportunities they see in light rail. The Lloyd Corporation successfully sought the relocation of an LRT stop to 8th and Holladay Street. The next group of Lloyd Corporation office buildings are now planned on Holladay Street adjacent to the relocated LRT stop—a shift from their historic orientation to Multnomah Boulevard. Finally, the City of Portland and the Lloyd Corporation are working together to create a strong pedestrian connection between Lloyd Center and Holladay Park station. To accomplish this objective, Lloyd Corporation may spend up to a half million dollars of their own money.

In downtown Portland the light rail is expected to have significant development impacts, particularly along First Avenue where it will enhance retail and office activity. Minor revisions to the Downtown Plan have been made to accommodate LRT. In downtown Portland, the major TSAP effort was the Downtown Pedestrian Streets Program. A joint decision by the City of Portland, Tri-Met and the downtown business community to provide Transit Mall level improvements along the LRT alignment in the downtown resulted. Significantly, the local match for these improvements will be paid for by the business community through a local improvement district.

Development Potential at Light Rail Stations

The Banfield Light Rail Transit line will have a positive effect on development. To understand the magnitude of new development anticipated, Economic Research Associates (ERA) of San Francisco was retained to compile detailed market forecasts for each of the 26 stations.

According to ERA, the best development potential along the Banfield line is found in the three First Avenue stations in downtown Portland. The light rail system, without question, enhances the development potential of this part of downtown Portland. Demand exists for 2 to 2.6 million square feet of office space, 1,100 to 1,600 hotel rooms, 240,00 to 440,000 square feet of retail space, and 550 to 700 residential units adjacent to these three light rail stations.

In east Multnomah County ERA sees a strong market force supporting an intensification of residential uses. The best potential for residential development along the Banfield LRT line is the Gresham central business district. ERA forecasts 2,000 to 2,300 multi-family units could be constructed within the vicinity of the Gresham LRT stations. In addition, ERA sees ample market support in the Gresham central business district for a one-million-square-foot shopping center and 400,000 to 700,000 square feet of office space.

Development Community Reaction to Light Rail

Based on interviews with senior members of Portland's development community, ERA found that:

- LRT is beginning to influence land investment and speculation decisions. Real estate brokers are advising their clients to purchase property along the Banfield line in anticipation of higher values.
- Developers active in downtown Portland believe that LRT will enhance retail activity in the vicinity of the three First Avenue stations. Many also saw that the rail system will strengthen the link between Lloyd Center and downtown Portland.
- Developers tended to agree that the Banfield line will have the most beneficial influence in the Gresham core. Availability of vacant land and the ability to plan a new town center are often cited as reasons.
- The Burnside stations were viewed as having primarily residential development potential with some convenience retail included.

Urban Renewal and Land Use

Exploration of other alternatives was conditioned by the unique context of Oregon to development leveraging by the public sector. Urban renewal districts have been frequently used by Oregon local governments for managing and financing development. However, voters have increasingly found them to be unacceptable instruments for tax increment financing. In several Portland suburbs they have generated substantial political conflict, leading in one case to the elimination of a city manager form of government and to continuing unrest in other localities. Voters in Gresham and Portland rejected the creation of Urban Renewal Agencies at the polls. This has left the non-profit corporation for negotiating cost sharing for development as the principal potential mechanism for guiding the development process. To this end, a non-profit corporation has been created with responsibility for negotiating the development around some of the LRT stations. It does not have the authority to force land-use

decisions, being limited to the potential established in existing land-use plans. Rather, it must act as a catalyst working with affected jurisdictions and potential developers to permit development potential to be realized.

The Transit Mall and the Downtown Decision

While the Downtown Plan clearly establishes an expectation of greater transit usage in lieu of continued reliance on the auto, the physical character of the CBD, the presence of the Transit Mall and the effect of the policies intended to promote transit in the downtown have all created a limiting factor in the type of transit that can be used. This limitation is both short-term and long-term in nature. In the immediate period after Mall completion, related transportation improvements had to compensate for its existence, i.e., "You can't tear up the Mall, we just finished building it!" Over the longer haul, the commitment made to downtown and the future of the CBD became a major transportation "given." Both of these issues surfaced in the process of deciding on the downtown alignment.

Under the initial leadership at CRAG, a study was performed in 1971 to ascertain its feasibility. The Transit Mall was also considered in 1972 as part of the Downtown Plan. In 1975, responsibility for the development of final plans and oversight of construction was given to Tri-Met under agreement with CRAG and the City of Portland. Design and construction proceeded during the period 1975-1978 with the Mall becoming operational in 1978. Costing slightly more than $14 million and occupying an eleven-block length of two downtown streets (5th and 6th Avenues), the Mall was Tri-Met's first major transit improvement project. It also represented the city's major centerpiece in the revitalization of the downtown business core.

From a transportation perspective, the Transit Mall was intended to improve downtown transit efficiency by creating an auto restricted zone dedicated primarily to transit use. This effort would increase the flow of buses through the downtown and provide greater commuter use of the system. The maximum bus capacity at the peak hour through the Mall is approximately 260 buses. For the Banfield corridor planners this became a major constraint in their analysis of alternatives. The busway alternative for the Banfield would have produced in excess of 500 buses per peak hour in 1990. The increases would have required subversion of the Mall as the transit focal point in downtown. Moreover, the attractiveness of downtown would have been negatively impacted by greater bus noise and exhaust emissions. While the busway would have been effective as a major trip carrier for the corridor and as a collector in East County, it would have produced severe consequences for the CBD. Support for the busway began to wane when these impacts surfaced.

With the reinclusion of the LRT to Gresham in the planning process, an alternative to the busway's impact on the Mall was possible. The LRT, however, produced other consequences for the downtown which were almost as insurmountable. From a cost and minimal-construction-impact perspective, an alignment for the LRT along the Transit Mall was undesirable. Tri-Met preferred a cross-Mall path to stay within its budget constraints. This also avoided major reconstruction of Mall streets for the trackage. Hence, they proposed an alignment along First Avenue coming into downtown with a crossing of the Mall along Morrison and Yamhill streets. This preference also eliminated the operational problem of running buses and the LRT along the Mall. With LRT running along the Mall and 80 percent of all transit riders still on buses, there would have been substantial reductions in operational efficiency.

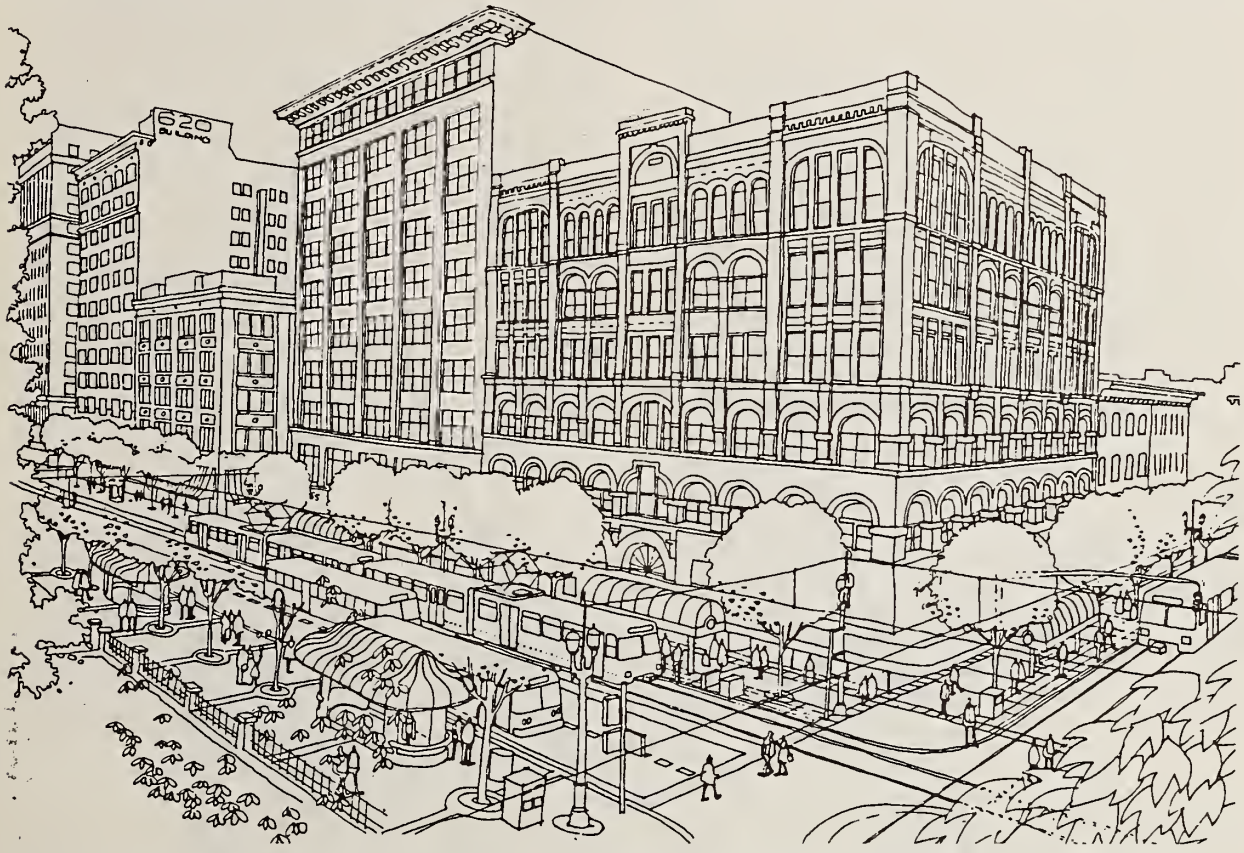
For the Portland Planning Bureau, however, this alignment initially posed several major problems:

- It would have conflicted with the downtown circulation plan by placing heavier transit loadings on streets identified as local access and auto-oriented;
- Transit access would not focus on the Mall as had been intended by its construction although Tri-Met maintained that 80 percent of transit ridership would still be carried by Mall buses;
- Efforts at encouraging development would have been confounded by a transit alignment in a "temporary" location;
- The cross-Mall alignment would have significant positive and negative impacts on the Yamhill Historic District;

Transit Mall
SOURCE: *Tri-Met*

- Future additions to the LRT system for the Sunset and Oregon City corridors would require an along-the-Mall alignment in the view of some politicians.

The Bureau ultimately recommended a cross-Mall alignment after negotiation with Tri-Met.

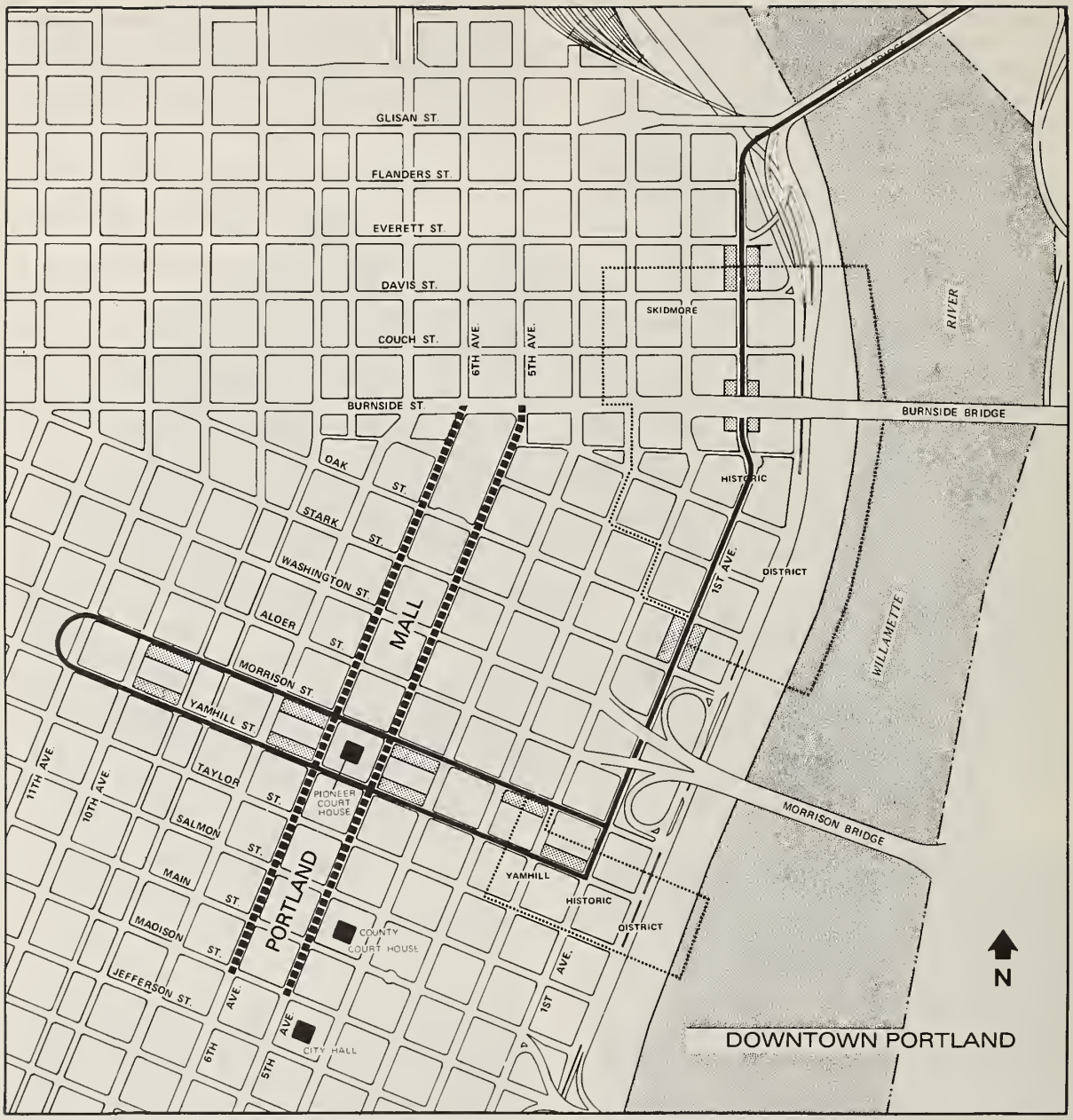


Downtown alignment decision was one of the most difficult. This view shows Light Rail on the Mall and on the Cross-Mall alignment.
SOURCE: *Zimmer · Gunsul · Frasca Partnership*

The conflict between these two options required almost a year to resolve and was complicated by the involvement of the legislature and residual public dissatisfaction over the construction of the Transit Mall. The Portland delegation in the State legislature supported the cross-Mall concept to avoid tearing up the recent construction. This political support, tied to the local matching share in the legislative deliberations, may have ultimately resolved the issue in favor of the cross-Mall approach. However, local tensions between Tri-Met and the City over the alignment still persist. These stem from the problems created in the downtown during the construction phase of the Mall. Several major access and construction liabilities existed during this period. Tri-Met had not moved quickly and efficiently to resolve them. A City Council member had even urged Goldschimdt to use his influence to force Tri-Met to resolve these construction and maintenance problems and to shape up its approach to transit development.

From a technical perspective a number of studies had been done which all indicated that the alignment should be along the Mall. The City Planning Bureau supported this approach. It was also supported by the business community located along the Mall. Portland had agreed to the cross-Mall alignment during the planning process for the Mall, at a time when the future of the LRT alternative was ambiguous at best. At the time the downtown LRT alignment actually came before the City in 1978, the City planning staff supported the along-the-Mall approach. In their view, the only obstacles were the additional cost, which the City would not have to bear directly, and the political opposition to tearing up the Mall, which would fall mostly on Tri-Met.

The planning staff made a recommendation to the Council in support of LRT along the Mall. This recommendation was forwarded to the Council and a first hearing held. At that point, Council action came to a halt while the City and Tri-Met negotiated. Ernie Munch, formerly of the City Planning Bureau, maintains that once it appeared that the City was alone on the issue and that the legislature wanted the cross-Mall alignment, a compromise had to be reached. While exact clarification as to why the City relented was not discovered, it appears that the Mayor after having led the process through much of its history did not want the City to be the lone obstacle to the selection of a project. Hence, the Planning Bureau changed its recommendation and a carefully worded



Light Rail alignment and station locations in downtown Portland
SOURCE: *Tri-Met*

resolution was drafted that downplayed the cross-Mall alignment as a through corridor, accepting the Tri-Met proposal, and establishing a positon that the second corridor constructed as an LRT segment would lead to an along-the-Mall alignment. With this adopted, the cross-Mall alignment was accepted as an interim measure for an overall LRT system configuration.

During the local process of resolving the downtown alignment, UMTA had been an observer. From their perspective, the alignment in the downtown and its impact on the Mall apparently were not critical issues. As Munch put it, so long as there was a good connection to the downtown (the LRT did not stop at Union Station at the extreme north end of the CBD) they would be satisfied. There was, however, one aspect of the downtown alignment which did provoke federal involvement—the potential impact on the Yamhill and Skidmore Old Town Historic Districts.

Historic Districts

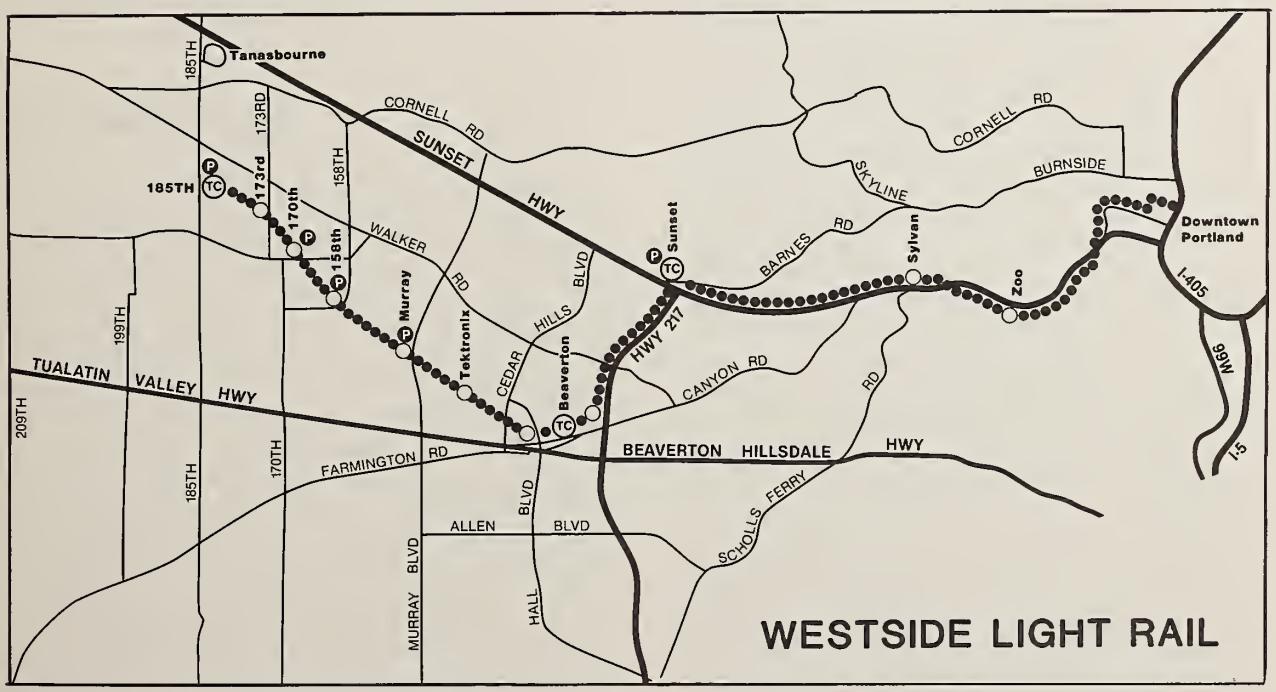
To bring the LRT along First Avenue to connect with Yamhill and Morrison streets required traversing both downtown historic areas. While the tracks themselves will not create significant impact, the overhead electrification would not conform to the character of the two districts. Moreover, the LRT would act as a "moving

wall," effectively splitting the districts in half. The FEIS addressed this issue, noting that the area had previously been traversed by Portland's electric trolley system. Yet, mitigation of the overhead wires did require extra design effort and the "wall" problem required limitation on service headways. Resolution of both problems needed the agreement of the Advisory Council on Historic Preservation. The Council, because of its veto power, was in a position to extract a large price from Tri-Met. Tri-Met built its case on a trade-off between these aesthetic infringements and increased transit service impacts. It ultimately signed an agreement which limited service in the districts, creating a "political" capacity constraint. Also, since the LRT will disrupt auto traffic on First Street, the agreement provided an opportunity to close it and create a transit/pedestrian mall along the LRT pathway. The agreement further stipulated the provision of "Historic Trolley" service and appropriate street amenities consistent with the historic district character. By their existence, the two districts created a "no-win" choice of either tearing down the buildings or redesigning the street.

Westside Corridor

The Westside corridor runs from downtown Portland along US 26 through the city's southwest hills to Beaverton and beyond. The corridor had been designated as a likely place for transit improvement in the Governor's Task Force Report and had been under active consideration and analysis by CRAG/METRO during the assessment of alternatives for the Banfield. While not directly part of the overall Banfield project, the Westside still has impacted it. An original recipient of funds from the Mt. Hood withdrawal, the Westside had been a competing corridor for funding throughout the local decisionmaking process. The fact that funds were available, however, turned out to be fortuitous. As referenced above, the Full Funding Agreement for the Banfield ultimately hinged on an agreement to tap only Interstate transfer funds, reallocating $76 million in Westside funds to the Banfield funding package. Without fungibility in the regional allocation of Interstate withdrawal monies, this option would not have been possible.

The second major linkage to the Westside grows out of its designation as another corridor for LRT use. The recommendation calls for LRT in the long run preceded by an interim, improved bus transit project. The latter has become necessary as a result of the Banfield funding arrangement. While the Westside project was issued a Letter of Intent for the replacement of funds for those switched to the Banfield, the Letter stipulates that the monies cannot be used for rail projects. Hence, in accepting a way out of the Banfield financial problem, the region has linked itself into a Westside project, which, in the short run, may foreclose the LRT option. Resolving this conundrum hinges on either obtaining Congressional and/or Executive permission to fund a rail start or securing private-sector funding. Both options are being pursued actively by Tri-Met.



Alignment of the proposed Westside Light Rail Project

SOURCE: *Tri-Met*

Summary

The broader context of transportation planning for the metropolitan area has been tied to the Banfield project. For the most part, this linkage has shown up as a process of adaptation and adjustment in terms of integrating the LRT into the broader range of issues facing the region. It has, however, been a reciprocal effect in that the Banfield has also established a given set of parameters around which other transportation improvements have been framed. In sum, the process of transportation decision-making which led to the LRT has grown beyond the matter of a single project and reflects the broader concepts and problems of transportation investments facing an evolving metropolitan area.

Chapter 9
Building the Banfield

Track installation in Gresham
SOURCE: *Tri-Met*

Moving the Banfield Freeway south to make room for Light Rail

Building the Banfield project is proving to be no less complex than the decisionmaking process. Several factors have tended to add substantial frustration and time to the process. Principal among these intrusions have been the engineering design process (including preliminary engineering), the relationships with federal agencies, the staging and character of the construction process, accommodation of scope adjustments (particularly in relation to local jurisdictions) and the relationship of ODOT and Tri-Met in the construction management process.

Project Design

Federal approval of the Banfield project took place prior to the initiation of final design. The Preliminary Engineering had been completed, but as noted below, was not sufficiently detailed to permit a smooth start-up of final design. The principal benchmark for the scope of the project is the Full Funding Agreement which defines its major elements. Yet, the level of detail is such that some specific systems and many final design decisions remained to be made. A reading of the Agreement indicates the basic configuration of the project, the location of its basic components and the base budget for the work to be completed. Moving from this point to construction has and is proving to be a time-consuming task made more difficult because of the working relationship between the two principal construction agencies, Tri-Met and ODOT. A cooperative agreement between these agencies spells out their respective construction and design tasks but does not deal with every element of the construction management process. Consequently, the coordination of their respective tasks has suffered and at least nine months has already been added to the construction timetable. Resolution of these troubles is ongoing but time consuming, leading to strained relations between the agencies.

Almost 90 percent of the final project scope was established in 1977 with the completion of Tri-Met's feasibility study of LRT. Further, refinement of this work was provided by the preliminary engineering process which was completed in December, 1980. In January, 1980, however, a good deal remained to be done. The preliminary engineering had been plagued by both technical and administrative problems. The mere fact that it was done in two phases was sufficient to add some complexity. These difficulties were exacerbated by a forced wait of three months between phases produced by UMTA bid award requirements and funding restraints. The start-up/shut-down process between the first and second phases also cost time and effort since the consultants had to review much of the work done in the first phase. Further, as Don MacDonald argues, the UMTA insistence that the alternatives analysis phase cover all alternatives considered for the corridor diluted the background work for the engineering effort. Consequently, in the view of some Tri-Met officials, the quality of the PE work was weaker than it might have been since the data on which it was based was not sufficiently detailed.

The first phase of PE was initiated in July, 1978 by Parsons, Brinkerhoff, Quade and Douglas (PBQD) and culminated in August, 1979. Second phase PE, also performed by PBQD, began in October, 1979 and ended in December, 1980. MacDonald estimated that out of the total 27 months in the PE process, at least nine of them were lost time. Partial responsibility for this time loss may be attributable to UMTA. PBQD also contributed, however, since it had successfully bid on three major rail proj-

ects simultaneously. This success taxed its staff capabilities. As a result, a completely different group of engineers performed the second phase PE work.

A further complicating factor was the requisite citizen consultation effort. For five months during the second phase of PE, Tri-Met held a series of workshops with affected neighborhoods to iron out project impacts and make adjustments in the final alignment and location of facilities. While no one at Tri-Met regrets the citizen effort—indeed they welcomed and encouraged it to mitigate citizen conflicts—the process did consume time and effort. A total of twenty-three neighborhood workshops were ultimately held, each producing a greater citizen awareness of the project and identifying areas for potential design modification.

In retrospect, the PE process was far more cumbersome and time consuming than it might have been. One element of this problem was the federal approval process which added time and complexity to an already difficult two-phase process. Yet, it was not the specifics of the federal requirements that proved difficult so much as the simple fact that there was one more step in the review and approval process. Moreover, necessary citizen review added further hurdles to the effort. In this regard, however, the additional time seems worthwhile in terms of less turbulence in the construction process. The City of Portland's foot dragging on the downtown alignment decision also added schedule and budget problems. While the PE was insufficient from a technical perspective, in the view of some Tri-Met officials, it did serve as a minimally adequate base to initiate final design. MacDonald, however, would have preferred a less complex, more advanced level of PE work.

Project Management

The hybrid nature of the project has had significant impacts on the management of its construction. Primary organizational responsibility is lodged with Tri-Met. However, this responsibility is shared with ODOT in the context of highway reconstruction. Under a cooperative agreement signed between the two agencies and the Full Funding Agreement, ODOT has responsibility under sub-contract to Tri-Met for the design and construction of the following project elements:

- Ramp access and main span modernization of the Steel Bridge across the Willamette River including electrification and LRT traffic controls;
- Holladay Street ramp to provide access to Sullivan's Gulch;
- Relocation of the Banfield between 16th Avenue and 87th Avenue including preparation of the LRT trackway grade;
- The Gateway Station ramp to lift the LRT across the I-205 Freeway to the station;
- An underpass at N.E. Glisan Street;
- Grading, drainage, walls and noise barriers between Gateway and East Burnside Street.

Right-of-way acquisition is also being performed by ODOT. Title to property will be vested in ODOT during construction with the provision that all property directly connected with the LRT portion of the project will be transferred to Tri-Met at the initiation of operation.

Tri-Met has responsibility for all other elements of the project's construction and operation. Contract procedures for the Tri-Met portion are UMTA's. For freeway work and all other responsibilities of ODOT, FHWA procedures are being followed.

The parceling out of these responsibilities was based in part on historical reasons and partly on technical issues. The shared technical responsibility of the two agencies throughout the decisionmaking phase of the project established the groundwork for a similar sharing of responsibility during construction. Moreover, the agreements struck between Glenn Jackson, the respective governors and the local agencies also affected this organizational relationship. From a technical perspective, Tri-Met faced a significant effort in gearing up to construct the LRT element. ODOT's reputation as a successful highway construction agent made it a "natural" for the freeway portion. Hence, there seemed to be a clear split along modal lines. This relationship, however, has ranged from extreme cooperation to mutual antagonism over time, a less than perfect arrangement.

The internal process of organizing for construction was different for both agencies. ODOT with its wealth of construction experience simply fell back on past practice. The design work is being performed by ODOT engineers in Salem. Tri-Met on the other hand had to gear up from scratch. There were several options open to the organization. It could have chosen to contract out the overall project to an independent consultant, to ODOT, or manage its portion of the project in-house. It chose the latter for several reasons.

Most important to Tri-Met was a need to carry through on its implicit commitment to organizational development. After having asserted itself as a viable partner in the regional transportation program, it needed to further prove the agency's organizational capabilities through the successful construction of the LRT. By bringing the project to completion on time and on budget, it would demonstrate its ability and put to rest any residual feelings of inability on its part.

Secondly, while the Full Funding Agreement had assured the availability of financing, the weakness of the PE effort, the uncertainties of construction costs and the need to curtail pressure for project add-ons posed real threats to the overall budget. To maintain control of costs and insure timely notice of possible financial problems, the agency chose to maintain direct control of construction. Even its sub-contracting relationship with ODOT was further sanctified in the Full Funding Agreement in the specification of their respective responsibilities.

Third, Tri-Met staff had gone out of their way to involve the agency's Board in all project phases. In accepting the *1990 Report* and committing the organization to a more activist regional transportation role, the Board had gone

out on a limb. To reassure the Board and protect it from unanticipated problems, the management team felt it necessary to retain the power represented in direct management.

Finally, the technical difficulty of constructing a major rail project was itself a sufficient challenge for the organizational staff. With the exception of Don MacDonald and Paul Bay, none of the staff had participated in a construction project of this scope. The LRT thus provided substantial opportunities for professional experience and development. It also meant that when the system was finally operational, the organization would be intimately familiar with all of its components and better able to respond to operating problems.

This choice to manage in-house was not without some costs. In part it meant staffing up to provide requisite experience. The first major steps in this direction had already been made in the hiring of MacDonald and Bay. Yet, to some extent, Tri-Met did not start this recruitment process early enough. In 1975 and 1976 the Portland area was almost unique in the contemplation of a new rail start. At that time professionals with rail experience were already limited in number. Yet, by 1980 the scarcity of talent was even greater. Coupled with the early (1976-80) emphasis of getting through the alternatives analysis phase, there was not sufficient attention given to the recruitment of qualified staff. Tri-Met was ultimately able to acquire needed personnel but marketplace delays in recruitment played a major role in the progress of design staffing and management. This meant less continuity of staff through PE and more effort in bringing people up to speed on the project.

The second problem was one of timing. Staffing was proceeding simultaneously with the final decisionmaking process. Consequently, a good deal of executive time was diverted from construction management and recruitment to the final stages of project approval, particularly during the period 1980-1982. Further, troubleshooting federal procurement requirements during vehicle acquisition and design of the Ruby Junction Maintenance Facility further diluted top management time and effort. Procurement continues to consume time and effort throughout construction due to the size of the project. Although Tri-Met has authority from UMTA to let contracts of less than $1 million, few if any contracts are this small. Consequently, the decision to retain management control has added substantially to the Tri-Met workload.

Final Design

LRT final design began with systems engineering in April, 1981. This process lasted for approximately three months. Civil engineering was initiated in July, 1981 and was completed in early 1984. The consultant for final design is Bechtel. The engineering has been complicated by two separate problems, the Full Funding Agreement (FFA) and the weak PE. It has been enhanced, however, by the proven technology chosen for the LRT. Additional complications also arose from federal requirements on the selection of the design consultant.

The PE weaknesses required substantial remedial effort by Bechtel. Further, there has been substantial tension over portions of the project, most notably the CBD alignment in Portland. This postponed portions of the final design activity. Political wrangling between Portland and Tri-Met arose over responsibility for the associated costs of construction (primarily street improvements), changes in planned routing at both ends of the line (the loop turnaround in Portland and the Gresham terminus extension), local developer demands for the provision of historic trolley service in the Portland CBD, persistent demands for project add-ons eliminated earlier in the decision process for budgetary reasons and litigation over the issue of utility line relocations.

Most importantly, final design was initiated during the negotiations for the Full Funding Agreement. This diverted substantial executive attention from oversight of the design process to the financing issue. MacDonald feels that over half of his time as project manager during the period of June, 1981 through March, 1982 was devoted to the FFA. Similar time demands were placed on Paul Bay and Bob Sandman, ODOT's project manager.

On the other hand, project design has been facilitated by the choice of a proven rather than experimental technology for the project. Less prone to experimentation with unproven add-ons or uncertainties regarding start-up, such a system is a known quantity to its designers and builders. The result is greater confidence in its ultimate operational success and installation.

In sum, the FFA did not nail down the project scope in sufficient definitive detail. Consequently, major design changes were initiated during the design phase producing a civil engineering process twice as costly as estimated in the PE. Principally responsible were underestimated costs and shifts in project scope. This added six to ten months to the civil engineering process, most notably on the downtown alignment and Burnside Avenue. These difficulties were further exacerbated by local political demands and considerations. The bulk of these delays, however, were generated locally rather than by federal requirements. Local officials believe that UMTA and FHWA were occasionally slow to respond where their involvement was necessary. However, they also openly acknowledge the region's culpability for most design and construction delays. As one Tri-Met official put it, "It's easier to hit the bullseye if you draw the target after the arrow has hit." The design and construction process might have proceeded more smoothly without federal involvement but the multijurisdictional local context of the project would probably have still created delays. For example, Don MacDonald's experience with the Edmonton LRT indicates that construction of such a system proceeds more smoothly where the line is contained solely within a single city and local engineers are free to call their own shots.

Vehicle Procurement

Vehicle procurement actually initiated the construction phase of the LRT project. The first physical act of construction was the initiation of the Ruby Junction Maintenance Facility contract in April, 1982. However, Tri-Met had initiated procurement of the LRT cars 27 months earlier to take advantage of potential cost savings and insure timely delivery of the vehicles. The timing issue was important since Tri-Met needed to prepare the maintenance facility for storing the first vehicles shipped and construct a test track for their acceptance testing. Under the existing contract, the first vehicle arrived in Portland in April, 1984, approximately eight months after the scheduled completion of the maintenance facility and the anticipated completion date of the first segment of track work. Tri-Met also needed the lead time to provide ample training opportunities for the train operators. The last vehicle is scheduled to arrive a few months before the opening of the system in 1986.

Tri-Met chose to use a two-step procurement process for vehicle acquisition. The first phase of the process covered development of vehicle specifications by Tri-Met, the solicitation of technical proposals from firms and the subsequent screening of these proposals. The second phase involved the solicitation of bids from qualified firms, bid opening and contract award. The prequalification of bidders through the solicitation of technical proposals permitted Tri-Met to insure that the final proposals would adequately meet system requirements and simplify final selection. To facilitate the process, Tri-Met persuaded UMTA to allow a sole source consulting agreement with Klauder and Associates for the development of vehicle specifications and screening of bidder technical proposals. While Tri-Met perceived that UMTA was not totally supportive of the extended procurement process and the sole source agreement with Klauder, they believe that the extra effort and time involved (approximately six-eight months over traditional single-step procurement processes) was worth it. Indeed, the contract price of $775,521 is far below the original estimates of vehicle cost.

The bid process was not without some problems, however. After opening the bid proposals, Tri-Met had 120 days to select the successful bidder and award the contract. Since the total procurement exceeded its procurement authority under the federal program, UMTA approval was required. This approval was not forthcom-

Tri-Met Light Rail vehicle at the Ruby Junction Maintenance Facility

SOURCE: *Tri-Met*

ing until the 119th day after the bids were opened. Tri-Met perceived that UMTA was dragging its feet on the award. Indeed this may be true since the negotiations on the Full Funding Agreement were proceeding at the same time and the federal agency may have been attempting to avoid biasing its final negotiations with Tri-Met over the agreement. However, another important issue may have been the "Buy America" provisions of the UMTA legislation. Under provisions then in effect, final bid awards went to American firms unless cost savings in excess of ten percent could be shown for awards to foreign bidders. The process of making cost saving determinations was complex since portions of procurements and equipment could be determined to be foreign or domestic in nature. With only one domestic manufacturer of rail vehicles, there is substantial pressure on UMTA to insure that they get a fair opportunity to competitively bid.

In the absence of UMTA's significant efforts in this regard, legal action can result with substantial cost and time implications for bid awards. Hence, UMTA seems to be cautious with such awards, perhaps overly so in the minds of some of its grantees.

Construction Process

The context of the construction management process for the Banfield is an important element in understanding its unique character. Most importantly, construction is the shared responsibility of Tri-Met and ODOT, organizations with significantly different construction experience. Secondly, the project crosses the boundaries of several jurisdictions, requiring individual permit reviews and approvals. Third, the hybrid character of freeway and LRT construction has produced added complexity in the staging of construction contracts. Finally, building the LRT in the streets of an urbanized area has been very difficult.

The FFA and cooperative agreements between Tri-Met and ODOT spell out their mutual relationship but not the operational character of contracts and bid awards. These have been established through design and administrative negotiation between local agencies and with federal agencies. However, FHWA and UMTA have different construction requirements reflecting their modal orientations and histories, and this has influenced local procedures. Tri-Met has not had the same relationship with UMTA and FHWA.

In a broader context these differences in organizational relationships are a product of the history of highway and transit agencies. After years of building highways, ODOT and FHWA are well staffed with engineering talent. Moreover, the shared construction experience of the two agencies has led to a well developed *modus operandi* between them. UMTA and Tri-Met, however, have a common construction experience only with the Portland

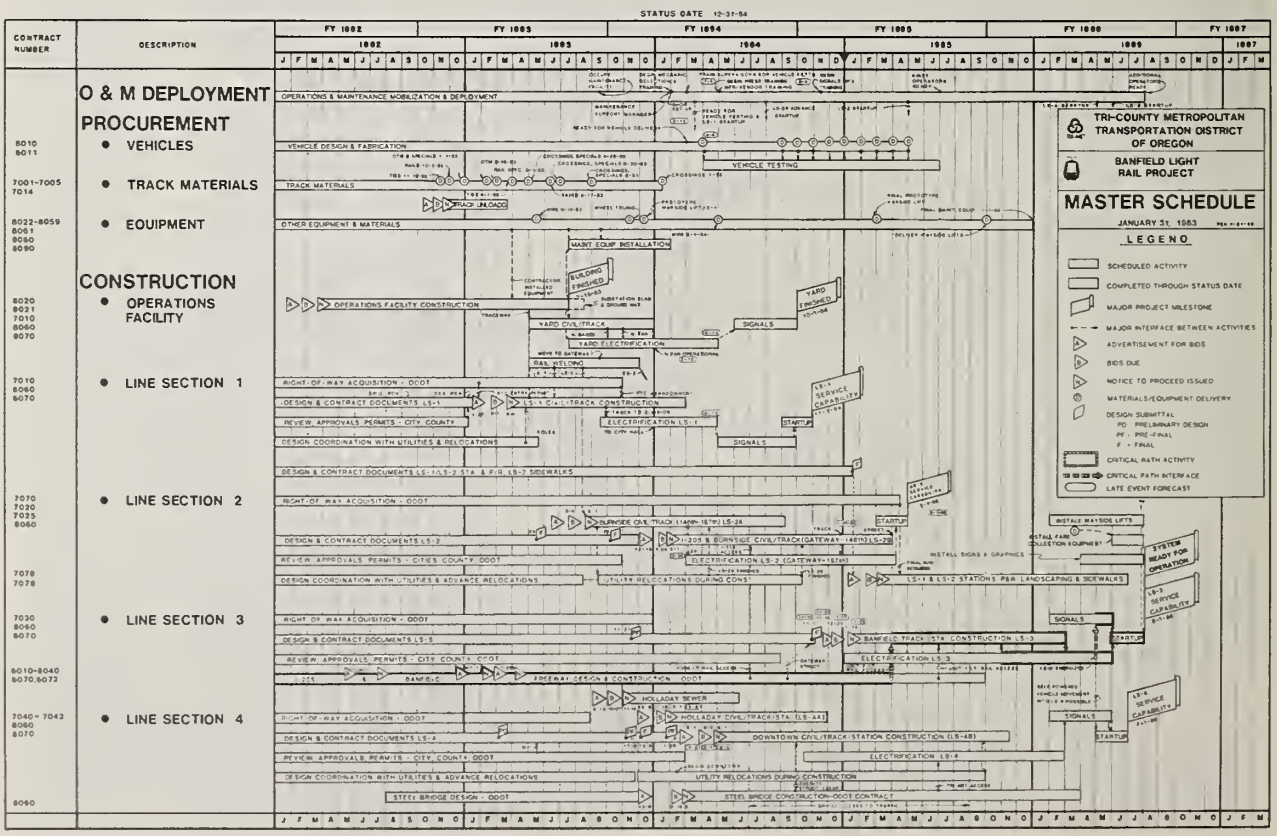
Tearing up Morrison Street in downtown Portland to make room for Light Rail
SOURCE: Tri-Met

Transit Mall. Neither agency is particularly well staffed with engineers, although in Tri-Met's case this has changed as the agency has staffed up for the construction of the LRT. Consequently, the process of detailing and specifying construction activities has been more piecemeal and less holistic in context. In summary terms, FHWA and ODOT have more procedural detail. Consequently, each step of the process must be followed correctly. It takes more time but is also more certain. For UMTA and Tri-Met the process itself plus the construction contracting and procedures must be established. Hence, there is more flexibility but less certainty. Tri-Met's perception of this relationship is that UMTA has been slow on occasion with approvals but has not done anything to slow up construction progress.

The relationship between ODOT and Tri-Met has not been smooth. Significant tensions have developed in the reciprocal responsibilities they have with each other. At times Tri-Met has been slow to produce data and design information necessary to ODOT's preparation of final design materials. In return, ODOT's management of its construction contracts has frustrated Tri-Met officials. Additionally, Tri-Met has been affected by other jurisdictions' permit and approval processes differently. In the latter instance, construction of LRT trackage on Portland streets and the attendant impact on individual property owners has exposed the agency to significant time delays. Multnomah County, the City of Portland and Gresham, while not responsible for any portion of construction, have the ability to influence its progress through permits, plan approvals and land-use planning decisions.

While each of these entities was party to the decision to build the LRT, none has been overly concerned with the expeditiousness of construction. They have no direct financial participation or commitment to the construction deadlines established by Tri-Met. Further, there is no external event, e.g., World's Fair, which provides an inducement to their responsive participation. As a result, Tri-Met has had to work with each jurisdiction on a case-by-case basis to overcome delays and lagging local approvals. ODOT, on the other hand, has not had this local approval process to deal with since its construction project is located almost entirely in an existing highway right-of-way. Immune from local reviews, ODOT engineers have simply done design work in the Salem office at their own pace. This pace, however, has not always been at the same level of urgency felt by Tri-Met.

Tri-Met's embarkation on the LRT project involves not only the success of an individual project but the entire image of the organization within the metropolitan region. It promises a more effective regional transit system, not just a smooth construction process. As a result, the organization feels not only the pressure of successful construction management but also the public pressure to



Master construction schedule for the Banfield Light Rail project

SOURCE. Tri-Met

Ruby Junction Maintenance Facility under construction
SOURCE: *Tri-Met*

make good on its promises. ODOT, on the other hand, is completing a project which is consistent with its normal mission and past practice. Moreover, the freeway widening and other improvements will eliminate congestion and improve auto travel. Hence, ODOT's share of the project will produce immediate tangible results in contrast to LRT's promised benefits.

Implementation of the Construction Process to Date

The construction contracting process has been complex because of the hybrid character of the entire project. Phasing of highway and LRT work and the timing of individual contracts have been complex both from technical and interorganizational perspectives. Tri-Met has been able to initiate construction on the maintenance facility and Burnside trackage east of I-205. From I-205 west, however, LRT construction work must await the completion of the highway portion of the project. The Portland CBD element of the LRT was held up by cost considerations and the negotiations between the City and Tri-Met over project scope and financial responsibility for related construction (street improvements and appurtenances to the LRT). Further, Tri-Met deferred work on the downtown alignment as a hedge against cost inflation. Bid awards for the outlying project work have been substantially below cost estimates. However, cost estimates for the CBD portion of the work have escalated from $7 million to $21 million. Tri-Met is attempting to save sufficient funds from early contracts to cover costs downtown.

Outside of the relationship between Tri-Met and ODOT there have been few major construction issues. Right-of-way acquisition and utility relocation costs have had some impact on construction progress but not to the point of major time delays. In the case of the former, acquisition of permanent and temporary easements along Burnside Street has proven cumbersome. Initially, Tri-Met was slow in identifying needed parcels to be acquired by ODOT. FHWA's right-of-way regulations required complete acquisition before construction work could begin. To facilitate initiation of construction on Burnside, responsibility for overseeing the right-of-way acquisition was administratively shifted to UMTA, despite incomplete acquisition. This facilitated construction but created a less "tidy" package than would be the case under the more routinized FHWA process.

Utility relocation has been a far more significant issue, primarily from a cost perspective. Tri-Met could not get

an accurate reading from UMTA concerning the eligibility of utility relocation costs. The basis for this seemed to be UMTA lack of familiarity with utility work and absence of detailed regulations on such matters. Hence, Tri-Met had to negotiate with UMTA over the matter. Ultimately, Tri-Met, to minimize project costs, attempted to force utility agencies to relocate their lines and pay the associated costs. The utilities challenged this in court which ruled in favor of Tri-Met.

Typically, Davis-Bacon labor provisions have been a major issue for construction projects funded with federal funds. As yet, these issues have not affected either the highway or LRT construction efforts. One of the highway contractors is using non-union labor and has been picketed by the unions. This has not, however, led to any formal Davis-Bacon or Fair Labor Standards actions.

Since the highway widening and straightening involves modifications to an existing freeway, there have been major dislocations of current traffic flows. The Banfield Freeway experienced three total closures during construction for bridge demolition and intermittent lane closures for portions of the construction process. During the construction period, it is estimated that approximately 20,000 autos will be diverted daily from the Banfield to alternative routes, primarily city streets. In addition, the reconstruction of several freeway overpasses and on/off ramps will produce substantial changes in travel patterns and additional congestion at these points.

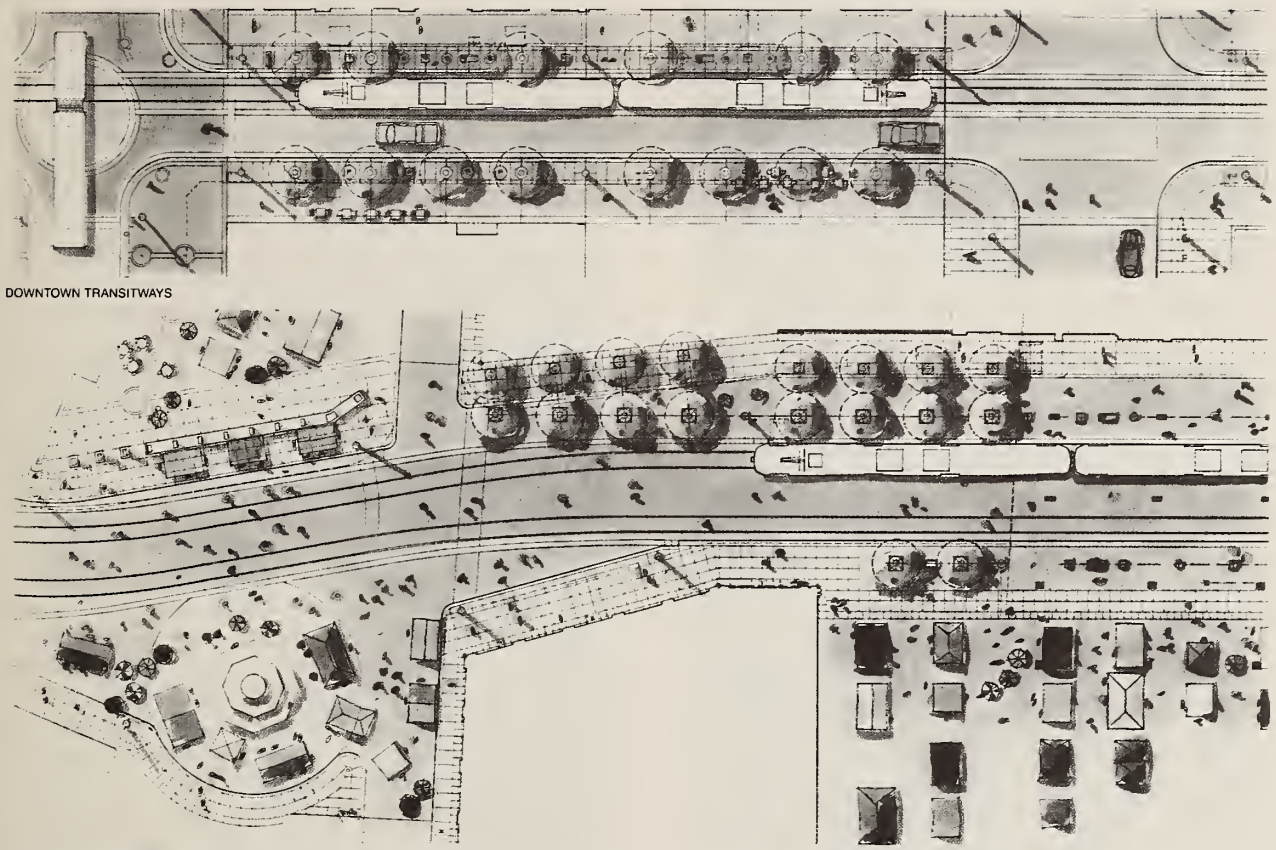
Preparation for LRT Operations

Completion of the Ruby Junction Maintenance Facility permitted Tri-Met to begin preparation for operation of the LRT. Tri-Met has begun the staff gear-up and procedures for LRT operations. Driver training is in the initial stages of development as are maintenance procedures and programs. Certification and Acceptance procedures for LRT cars and related equipment have recently been developed. The first cars were shipped to the US DOT Pueblo, Colorado test track for "burn-in," with subsequent testing in Portland. Tri-Met completed its operations planning in mid-1984 to permit full scale development of its operations system late in the same year.

Summary

The construction process for the LRT has been marred more by the relationships between local agencies than by overt failures or intrusions by UMTA or FHWA. Local inability to develop a smooth working relationship over governmental permits and approvals has troubled but not overly delayed construction progress. Phasing of LRT and highway construction has added an additional six months to the construction period. The hybrid character of the overall project has made the construction process more difficult but primarily because of local interorganizational and intergovernmental relationships rather than significant technical difficulties. Where technical difficulties have arisen, they have been the product of weak preliminary engineering and local political pressures for scope modifications rather than federal efforts to regulate the construction process.

Chapter 10
Findings and Conclusions



Detail of Light Rail improvements in the downtown along Yamhill Street and at the Skidmore Fountain in Old Town
SOURCE: *Zimmer · Gunsul · Frasca Partnership*

The Banfield Decision Process

The decision to build LRT in the Banfield corridor was more than just a matter of choosing between alternative projects. It represented the culmination of other forces and issues affecting transportation throughout the metropolitan area. Specifically, the Banfield decision was affected by the following:

- A major reshaping of the metropolitan area in terms of land-use, business and lifestyle considerations;
- The choice of transit as a tool for shaping the metropolitan area;
- A major structural and political change in the metropolitan decisionmaking process for transportation investments;
- The exploitation and use of a new funding approach to transportation financing;
- The building of a new political consensus among multiple governmental jurisdictions;
- The incremental evolution of federal, state and local policy objectives;
- The organizational development of major transportation agencies;
- The fundamental politics of public works programs;
- The unique role of critical individuals;
- Fortuitous events.

The Revolution in Metropolitan Transportation Philosophy

From its outset the process of developing a transportation project for the Banfield corridor was linked to a "revolutionary" restructuring of transportation planning in the Portland metropolitan area. The withdrawal of the Mt. Hood Freeway established the financial and analytical

options but was only symptomatic of the underlying problems facing the region. The political legacy of this withdrawal lingers since many of the freeway's supporters are only grudging proponents of the LRT. Unless the LRT noticeably succeeds in accomplishing its objectives, the commitment to the transit system could crumble.

By developing transit options for Portland, Goldschmidt provided a direction for the rethinking of the transportation planning and decisionmaking process. Given the lack of particular project-level objectives, his effort opened the door for the ensuing processes. Without the pressure to provide an alternative project to the Mt. Hood to insure the capture of federal monies, the subsequent events may not have occurred in the same way. Facilitated by the absence of commitments to competing project objectives, decisionmaking was framed around options. As alternatives emerged, the participants were in a position of opportunity rather than opposition.

Financial flexibility minimized costs to the respective jurisdictions. Hence, the only potential losers were the prior supporters of the Mt. Hood. They, however, were politically hamstrung by public opposition to the freeway. This public opposition may not have been universal or well informed, but it served the interests of the proponents of transportation alternatives. In the vacuum created by the withdrawal, new directions were possible that might not have been feasible at any other time. That they came to pass was a product of leadership provided by a number of individuals, political pragmatism and a willingness to explore opportunities. Yet, it is also clear that while many individuals contributed no one had a grand game plan which led the process from start to finish. Instead, a slow aggregation of support and consensus-building produced an outcome not a foregone conclusion. This outcome, however, was not without significant risks associated with untried procedures and programs.

Implicitly, the federal grant process provides a structure for grantee development and choice of alternatives. Yet, it is usually imposed on a situation of drawn local battle lines or predetermined choices. Put another way, by the time a metropolitan area is ready to proceed through the alternatives analysis process for either FHWA or UMTA, its project objectives may already be well established. The Portland case was unique not in the fact that its political and technical representatives were any better than other urban areas, but that they were able to enter the federal process prior to a project commitment, make use of it for the purpose of identifying a workable approach, develop the necessary decisionmaking consensus, modify it where necessary and consequently develop a workable answer. While the resulting project may not have met all of the technical tests applied by the federal agencies or fully conformed to the letter and spirit of their regulations, it does represent a commitment reached through rather than prior to the federal process.

Organizational Change and the Political/Technical Linkage

Clearly, the integration of the technical and political process underlying the Banfield decision affected the final product. It may not have been fully justifiable from either perspective but it was acceptable and understood by the institutional participants. Moreover, the time invested in building and maintaining this linkage resulted in a far more important outcome, an enduring base of support for the project. The technicians and administrative staff were as adroit politically as the politicians were technically. There were few surprises to create public embarrassment or frustration. This technical/political linkage also created a workable means for problem solving. This has extended to other transportation projects in the region, most notably the Westside corridor.

From an institutional perspective, the Banfield has contributed to the development and enhancement of two of the region's major organizations, Tri-Met and METRO. In the latter case, the efforts of the Governor's Task Force contributed more than a justification for transit. They improved the regional forum for making the necessary decisions. METRO has not led the process. Without the regional forum it provided, however, a far more cumbersome and complex approach to local decisionmaking would have been necessary. Used or abused by the participants, the MPO has become a common meeting ground for the resolution of policy and program differences. Without it, and its technical capability, there is sufficient justification to question whether the process would have found the necessary mechanisms for integrating the diverse jurisdictional interests.

For Tri-Met, the result has been its emergence as the transit advocate for the region. Its participation as a passive observer in the early phases of the planning process may not have served transit interests well. But, as Gerry Drummond, Tri-Met's Board Chairman has observed, now that the commitment to transit is established, a major project is underway and the original political leadership has dispersed, Tri-Met is in the position of being the metropolitan leader in the transportation development process. The building of the administrative capacity of the organization, the rethinking of its organizational mission and the upgrading of its public image have made the agency a recognized national leader in the transit industry. It has come a long way from being "unable to site a bus shelter."

Organizational change also produced a greater state role in metropolitan transportation issues. ODOT is still a traditional state highway agency in some respects, but its involvement in the transportation planning process for Portland affected its evolution toward a broader transportation philosophy. This has not resolved all of the tensions between Tri-Met as a metropolitan transit agency and ODOT as a statewide transportation agency but clearly it has tempered and hastened the recognition that the two agencies share a future of common interest. ODOT's creation of a metropolitan division facilitated the

technical and political linkages and supports the concept of joint problem solving. Additionally, three governors have played an important mediator/facilitator role in aiding the metropolitan area through technical support and financial assistance. A deeply-seated, antagonistic relationship between ODOT and Tri-Met would have prevented this cooperation from achieving the level of effectiveness that it has attained.

The Absence of a Single Dominant Political Leader

The absence of a dominant, charismatic political leader throughout the decisionmaking process may have facilitated the ultimate decision. Goldschmidt played a central role early on in setting the stage for the process to unfold, but he alone did not drive the process. He was supported and/or complemented by Glenn Jackson, Gerry Drummond, Mel Gordon and Don Clark. Each individual facilitated the development of the local political consensus but for different reasons and at different times. The respective governors provided critical state support but did not lead the process. The absence of a single leader was feasible because the individuals involved respected each other and recognized the need to cooperate. Further, there was a mutual interest, for either pragmatic or philosphical reasons, in seeing the process move forward productively. Because of the involvement of all these individuals, the project was not identified solely with any one interest or perspective. It truly became a regional project, admittedly for reasons not always linked to the specifics of the Banfield, because of the Interstate funding process. Moreover, it is questionable whether any one individual could have maintained leadership of the process over its ten-year span.

Delays in Decisionmaking

Although the metropolitan area developed a final commitment to the Banfield project through a relatively open, cooperative process, there were two decisions which produced substantial tension: the commitment to proceed with the I-205 construction and the downtown alignment. The I-205 decision grew out of the need to obtain Glenn Jackson's blessings for the Mt. Hood withdrawal. This support was not without its costs, however. The County's insistence on the LRT option and ODOT's commitment to freeway improvements meant that these alternatives took on an independent existence and could not be ruled out simply for technical reasons. The need to constantly work with these commitments added time to the process.

The downtown alignment decision also added time to the decision process. The protection of the Transit Mall's operating efficiency and Portland's commitment to the preservation of downtown both became obstacles to a smooth technical process. While these concerns grew out of a commitment to transit, they also took on the character of analytical limitations to the evaluation of alternatives. More importantly, the alignment decision rose to a level of political concern which involved the state legislature. Resolution of the conflict was critically important to the ultimate success of the project and the maintenance of the local political consensus.

There were other less troublesome local decisions, but the maintenance of the local consensus became a paramount goal. The resolution of "squeak points" was possible because of the commonly felt need to get some project agreed to, the commitment to tap the Interstate transfer monies and the flexibility of the funding scheme. The recognition that all of the participating jurisdictions would stand to lose funds for their local highway and transit projects without agreement to a Banfield project was a potent glue. The absence of a prior commitment on the part of all but Multnomah County facilitated and hindered the process throughout its course. Without deeply seated commitments to contending projects, the participants could work constructively toward a project ultimately acceptable to all involved. Yet, the absence of a preferred project until relatively late in the process also meant that the participants were generally working toward an ambiguously specified goal. Such efforts take time beyond the federal process for obtaining financial assistance. Hence, in retrospect, it could be observed that the Banfield process took surprisingly less time than might be expected. The saving factor may have been the fortuitous simultaneity of both local and federal delays.

The Federal Role in Decisionmaking Delays

Discussions concerning the appropriateness of federal requirements implicitly assume that they alone are responsible for delays in the implementation of federal programs through intergovernmental mechanisms, i.e., grants-in-aid. Explicitly, the case is made that federal requirements are an undue intrusion and add unnecessary complexity to the transportation decisionmaking process of local and state decisionmakers. The Reagan Administration has made a sustained effort to minimize if not eliminate federal regulations wherever possible to reduce this burden. The Administration's long-term goal is to return domestic policy and financial responsibility to the states and, concomitantly, to local governments. In those instances where a complete devolution is accomplished, the burden of federal regulations may become a moot issue. Such a complete devolution has not yet taken place in transportation. Although a realignment and a new sharing of responsibility is underway, federal regulations continue to persist in a restructured form. Hence, the problem of regulation must be approached on two levels: 1) in what areas should the federal government continue to regulate and to what end, and 2) what improvements can be made in the federal regulatory approach which can fine tune the administrative process, thus alleviating unnecessary paperwork and expediting decisionmaking.

Ultimately, the answers to both questions rests on fundamental public accountability. In any intergovernmental context, there are by definition multiple public ac-

countabilities for all governmental participants. It is this context as much as the specifics of the relationship that gives rise to the majority of problems surfacing in such a relationship.

None of our respondents questioned the need for federal regulations. The basis and the need for these regulations was understood and recognized as the federal government's legitimate effort to ensure accountability for the expenditure of federal funds. Moreover, as long as the specifics of the federal requirements are known in advance and, hence, are predictable, they can be planned for and dealt with more or less expeditiously. Thus, there is no inherent delay attributable to federal requirements beyond those established by prior design. Known time delays and procedural requirements can be accommodated.

Regulatory requirements become troublesome, however, for three principal reasons:

- Critical time problems inherent in an individual project;
- When they contravene the substantive interests and program objectives of an individual or multiple participants;
- When they are perceived as time consuming toward no ascertainable payoff or benefit to the regulated or regulator.

The regulated party may not always clearly articulate its objection to regulation on any of these grounds. Indeed, it may confuse them, complain vociferously on one ground for the purpose of circumventing a requirement founded in one of the other two or may be engaging in an activity which simply falls between the cracks of existent regulations. Particularly in the latter situation, new and different projects and processes raise issues and problems which confound the intent or prior knowledge of even the wisest of regulation drafters. The problem of regulation is not just simply a matter of an undesirable regulation. Just as importantly, the perceptual and practical context of a regulation's application determines its acceptability to affected parties.

Federal "Footdragging"

In the Banfield case, the major local problem with federal regulations was more in application than content. Most of our respondents felt that there was far too much unpredictability in the application of regulations and technical requirements. We found a consistent perception that US DOT staff used technical requirements and extended review periods to avoid making timely decisions or to stave off approvals. It was felt that the basis for this action stemmed from the political pressure under which both US DOT as a whole and UMTA in particular functioned in terms of available financing. In the early '70s UMTA had sufficient funds available to meet demand. However, as the decade drew to a close the demand grew, outstripping UMTA's ability to provide funds. In the absence of a clearly articulated set of warrants to determine which projects should be funded, UMTA staff seem, from an outsider's perspective, to have adopted a posture of deferring decisions and approvals as a means of balancing the demand and supply relationship of available funds.

The validity of this perception seems sound. Yet, we do not have the information here to verify it. Moreover, in the absence of interviews with federal staff and political officials, we are not able to explain other, below the surface, factors. It is, however, a widely held piece of "conventional wisdom" with local officials and cannot be dismissed out of hand.

The UMTA/FHWA Administrative Role

The uniqueness of the Banfield funding process and the nature of the project left it between the cracks of two federal funding programs. Both UMTA and FHWA had a project to deal with that did not fit their funding guidelines directly. Consequently, they often had to redesign or custom fit federal regulations to the conditions presented by the Portland approach.

The process of decisionmaking consumes time. During the time involved administrative agencies, policies, regulations and people change. These changes not only make it difficult to plan strategies for dealing with federal requirements but often appear at critical junctures in the process or create sometimes incomprehensible Catch-22's.

It is difficult without direct federal input to classify the ensuing federal-local relationship as conflictual. The setting described above readily lends itself to this perception on the part of local decisionmakers. The initial phases of the federal review process, up to the point of project approval, were perceived by local people as conflict laden. Some of this is attributable to the "different" approach taken by local agencies in the alternatives analysis process and to the overall project. As noted earlier, Portland was doing something unique. Another causal factor was the fact that the project fell between two federal agencies which were being forced to integrate their diverse regulatory requirements by a grantee which refused to take "No" for an answer. The local perspective, despite these qualifying factors, is that federal officials were not always the most supportive or willing partners in the process.

This was even more important after the project was approved by US DOT. The perception of non-cooperation has carried over to the funding and construction aspects of the project. Changing federal policies have affected relations with local officials, which may have slowed progress.

Specific Regulatory Impacts

Perceived federal "footdragging" produced problems in other phases of the project. Tri-Met experienced considerable gaps in consultant design and assistance directly as a result of tardy federal approval of consultant selection. Gaps occurred between the two segments of Preliminary Engineering and between Preliminary

Engineering and Final Engineering because of delays in federal approvals. According to Don MacDonald, Tri-Met was effectively without consultants for one-third of the PE effort and for one year between PE and FE because of startup mobilization and lack of federal approval. This produced a lack of continuity and a weaker design effort.

More specific problems with federal regulations surfaced in the alternatives analysis and procurement aspects of the project. On the alternatives analysis side, the federal requirement to treat all projects equally diluted the final alternatives from a local perspective. Although the requirement to examine a range of alternatives was not perceived as unreasonable, there was an expressed preference for eliminating some alternatives as the technical analysis demonstrated their unsuitability. Carrying all alternatives through to the completion of the analysis diluted the energy aimed at the most promising options. For the preferred alternative in the Banfield corridor this produced an approximation of project costs and consequences. In retrospect, a level of analysis comparable to preliminary engineering on two or three alternatives may have produced a better technical choice.

The Buy American requirements, while not contributing to a concrete delay, did draw out the procurement process to the last day of the bid award procedure in two cases and close to the expiration date in another. The vehicle bid was awarded on the 119th day, as was the rail contract. The track material contract was awarded on the 75th day. It is principally in relative comparison that these bid awards appear delaying. Where American materials were procured, bid awards were made more quickly. For example, the rail tie contract was awarded in eight days and the maintenance facility contract in three days.

Implications

Transportation Planning and Intergovernmental Decisionmaking Projects on the scale of the Banfield require flexibility in order to arrive at an effective decisionmaking process and project selection. Flexibility, however, is often difficult to achieve in a constructive fashion for projects of this magnitude because of the consequences. Major rail and highway projects inevitably seem to pose problems arising from unique on-site conditions, changing context and potential opportunities. When flexibility was attained in the Banfield case, it often had to be forced, in the perception of local officials, on the federal government. Portland officials confronted this problem on several levels, including policy and regulatory requirements and federal procedures. In each instance, considerable local political and technical effort was necessary to establish a means for what Portland wanted within the federal process. The "rightness" of this local effort notwithstanding, this meant custom tailoring federal requirements to a local case. The degree to which this is possible for the federal government is problematic. It raises substantial issues with consequences both for the accountability to federal policy standards and in terms of other potential grantees which might lay claim to similar treatment based on precedent. Hence, federal efforts to accommodate flexibility are not taken lightly or without justifiable concern in terms of their impacts, despite the intrinsic correctness and desirability of their substance.

In the spirit of cooperation and intergovernmental partnership, the federal government should make every effort to accommodate local initiatives. Yet, while local officials believe that their proposals merit such attention, it is just as important to recognize that they may be pushing their federal counterparts to the limit of discretionary authority or exposing them to policy consequences which may prove counterproductive from a national perspective. Couple this with local efforts to change federal policy requirements where they do not mesh with local preferences, and a situation is created which goes beyond a mere matter of regulatory descretion and flexibility. The extent to which such issues can be incorporated within the policy and regulatory requirements of all parties involved in such relationships is a difficult problem to resolve. Further, the process of intergovernmental cooperation and joint problem solving is more than a simple regulatory process, a factor which may not be adequately addressed by federal, state or local requirements or the actors involved.

The Project Focus of Transportation Planning

Illustrative of this problem of intergovernmental cooperation are the federal planning requirements. While couched in terms of a continuous comprehensive and coordinated process covering three distinct time frames (TSM, Five-Year TIPS and long-range plans), they really emphasize a project focus. Hence, if a metropolitan area has established a working consensus and process for local decisionmaking which produces the products expected by federal agencies, there is a substantial likelihood that a cooperative relationship will exist. This underlying consensus, however, may only be "skin deep," developed solely to take advantage of federal funding and without significant commitments to a long-term working relationship focused on mutually acceptable goals. Moreover, in situations where contending local factions refuse to accept the outcome of the planning process there is considerable room for confounding the outcome through political action and end runs around it. The Portland case illustrates another dilemma for federal process expectations in its novelty. Without a project or product focus, it is difficult for federal agencies to work with metropolitan areas involved in a major reorientation of policy goals and decisionmaking processes. There is simply very little of a tangible character for the federal agencies to grab onto and assess. This makes it difficult to ascertain what cooperation should focus on. For federal agents wishing to avoid being embroiled in local political decisions, the easiest answer is to wait and see what emerges. From a local perspective, dragging the federal actors into the process may be done in the name of cooperation but without recognition that these agents lack the ability to resolve local conflict or wish to avoid the often zero-sum character of local decisionmaking. Just as likely, the federal government makes a good "boogeyman" for explaining the need to make local decisions in a particular manner.

The Value of "Block Grant" Flexibility

Ultimately, the outcome of the federal-local relationship in the Banfield process in a "favorable" fashion may be attributable to the withdrawal process and the financing options it provides. Despite some federal dissatisfactions with the project, it is still an investment in transit and highway improvements which is the fundamental *raison d'etre* of the program. The funds might have been "better" invested elsewhere but in the absence of detailed national criteria for investment this judgment is difficult to make. What is more readily apparent is that the project will enhance transit and auto transportation in Portland, an outcome consistent with federal objectives. The value of the Interstate withdrawal process is, hence, not solely in more effectively achieving federal goals but more importantly in the fashion that it enhanced local abilities to reach locally acceptable decisions.

Unlike traditional categorical grants for highways or mass transit projects, the withdrawal funds were used for a wide variety of projects, particularly after the passage of the Federal Highway Act of 1976. This fungibility was critically important at two points of the process. It laid an important groundwork for an effective local political consensus not only for the Banfield but for metropolitan transportation improvements and goals. Secondly, the flexibility of the monies provided the region with the ability to respond effectively to the Administration's desires to avoid new rail starts by internally reallocating funds to construct the project solely with Interstate monies. Neither of these results was achieved without costs. Yet, the flexibility of the process contrary to traditional categorical funding procedures provided options and forced a local rethinking of priorities without extending the decisionmaking, *ad infinitum*. The value of this mechanism extends beyond this local/federal flexibility in financing however. It demonstrates, despite the federal-local conflict which gave rise to the need for seeking new alternatives, the ability of a less restrictive funding format to promote creative problem solving and mesh disparate policy objectives. It is the kind of outcome to be hoped for within a broadly construed set of federal priorities within which local decisionmakers must operate to attain maximum achievement of local goals.

Lessons for Transportation and Intergovernmental Relations

During a period of rethinking of federal-local-state relationships in transportation, the Banfield case provides some useful insights to the direction the process should take. Clearly, all parties would be served by the development of a relationship which minimized the success of footdragging and stonewalling as a means to attain objectives. Moreover, a mutual recognition of limits both in terms of substantive transportation objectives and in terms of endrunning the relationship is needed. Where the Banfield process was most effective was: in terms of each side making its objectives known clearly; the development of an effective consensus concerning this objective on each side; and the development of communications and a problem-solving approach exploring options within established frameworks rather than diverting energies to changing the rules or outwaiting the other side. In the absence of a definitive set of federal decision criteria and locally derived priorities, this may be the most desirable outcome.

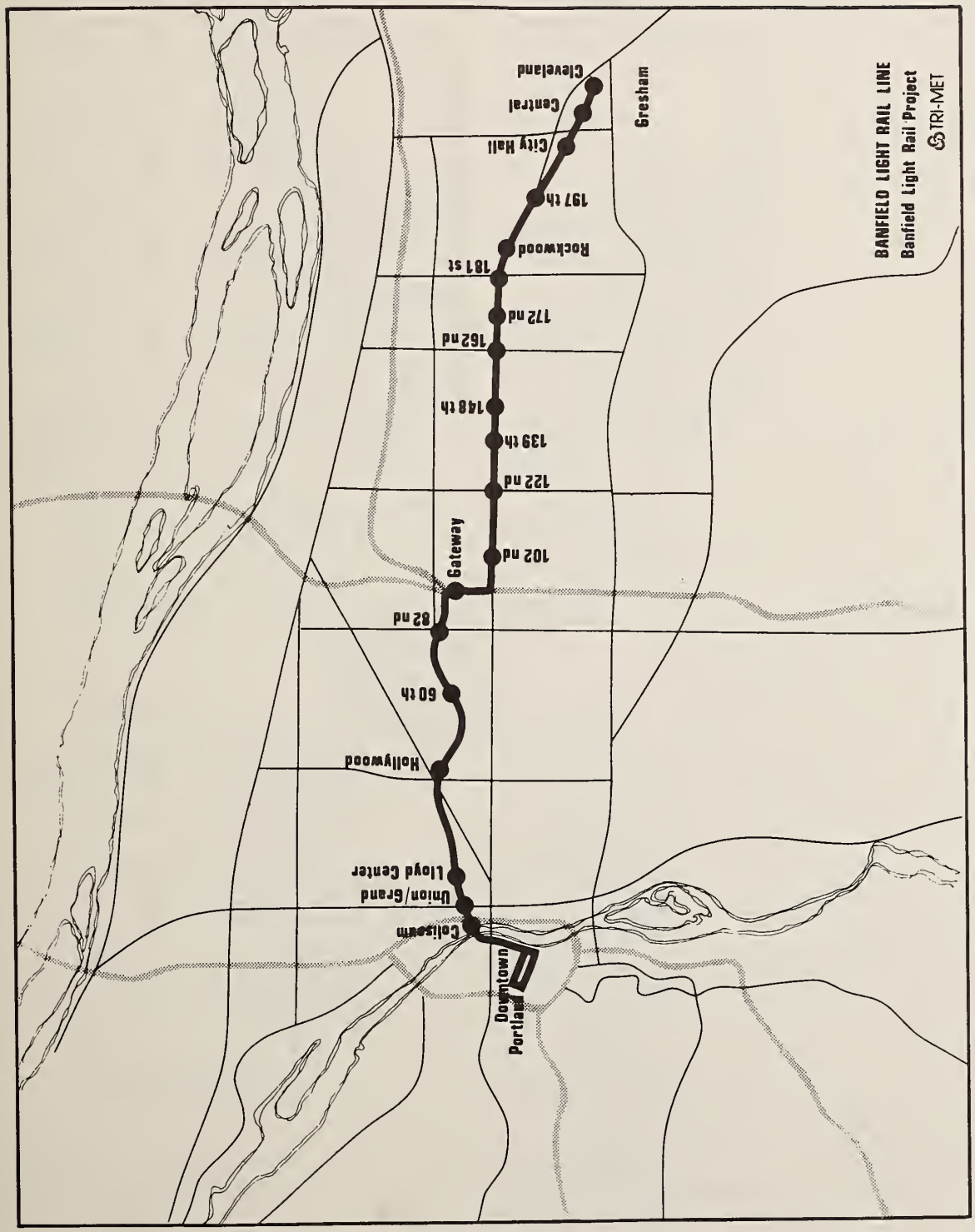
The pseudo-block grant mechanism developed through the Interstate withdrawal program puts a premium on several attitudinal and programmatic approaches to transportation decisionmaking in an intergovernmental system. First, it requires a broad frame of reference within which the respective federal, state and local agencies must mutually establish and share their objectives and goals. It minimizes the need to examine in miniscule detail each action by the respective parties, relying instead on a commitment to a constructive process of mutual agreement and problem solving. By establishing broad parameters for optional courses of action, it allows the respective participants to adjust to the realities of given situations and negotiate workable solutions. It forces recognition of individual policy and program limitations without interjecting or forcing accommodation to the programmatic and regulatory requirements of another entity. Within the financial resources available, this approach permits exploration of attainable options without precluding opportunities and innovation.

Achievement of these ends, however, requires that the respective parties adopt an attitude of good faith, recognize as legitimate the policy mandate and regulatory requirements of each other and establish a process of communication which promotes learning and understanding rather than simply an exchange of paperwork and phone calls. As the experience with block grants prior to the Reagan Administration has shown, there have been situations where local agencies have exploited the flexibility for narrow self-interest and federal efforts to "recategorize" requirements to either protect accountability or meet the objections of interests outside the process. Hence, from a transportation perspective, an effective framework of intergovernmental decisionmaking requires more than regulations and guidelines. It requires a significant commitment to effective problem solving and mutual respect.

Too much cooperation, however, also poses a danger to effective decisionmaking. The political/technical marriage of the Banfield process produced a project which met short-term political tests and technical procedures. The technicians and politicians honestly and sincerely believe that the project will work, is cost effective and will be the centerpiece of Portland's transit future. In retrospect, however, the decision process took place in an evolving technical context. The expectations of the '70s concerning transit's ability to solve land-use, environmental and energy problems were very high. These expectations have been tempered with greater recognition that impacts, such as in the BART and Portland Transit Mall cases, have not been as expected. Similarly, the basic models for transit demand forecasting during the early and mid '70s were not as sophisticated as those we have today. Thus, to some extent, there was an element of faith in the ultimate selection and effectiveness of the LRT. Constant refinement of our modeling processes and procedures will produce better technical forecasts. Their success, however, is only measured by an operating system, long after the op-

portunity to recant is past. Only a constant, critical evaluation of objectives and options can minimize the potential for error. If Portland erred, the problem may be moot. The LRT will operate at the most efficient level that its operating agency can achieve. Its measure of success will not be cast in terms of the claims and forecasts of 1976, but in the light of what it does today or in the future. If it does not do everything it might or can, additional investments to preserve its image as an effective instrument will be made.

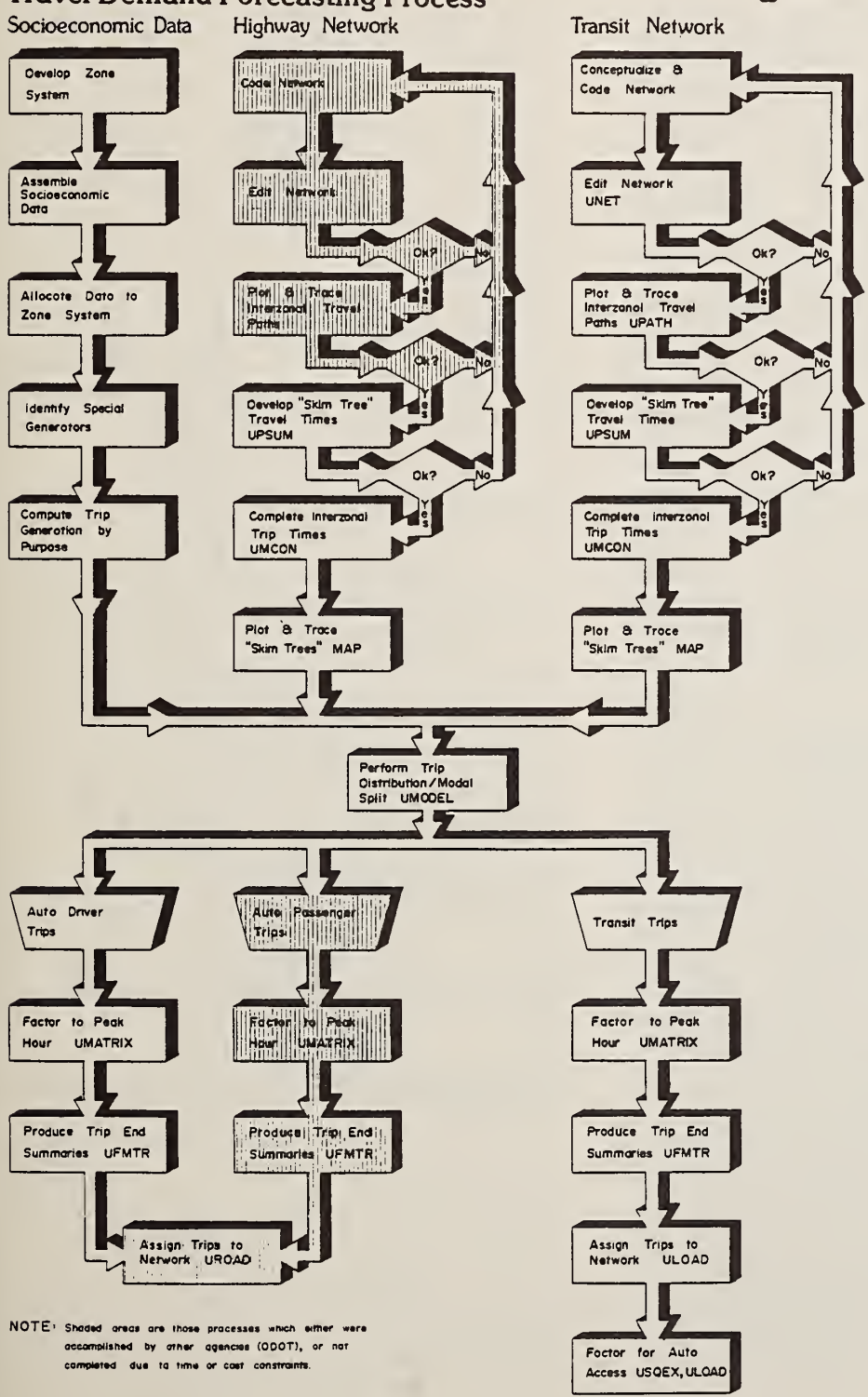
Appendix A
Project Alignment



Appendix B
Travel Demand Forecasts

Travel Demand Forecasting Process

TRI-MET

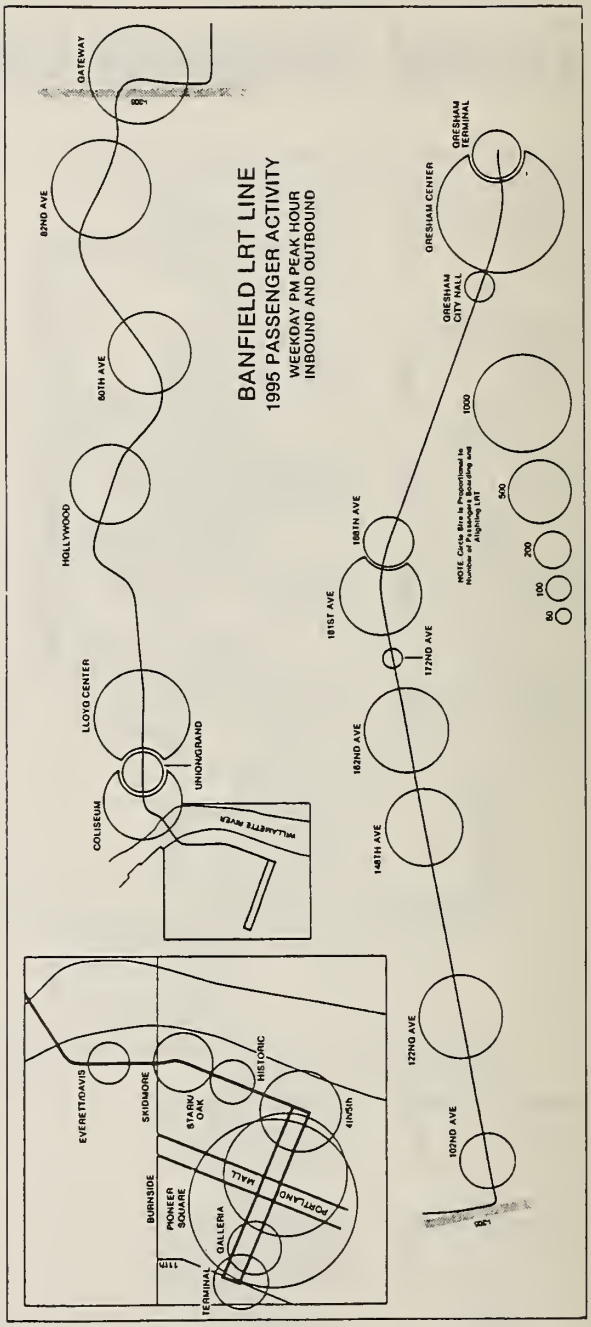


NOTE: Shaded areas are those processes which either were accomplished by other agencies (ODOT), or not completed due to time or cost constraints.

In terms of the DEIS, which represented a merger of Phase I and Phase II Alternatives Analysis, the following data bases were used: socio-economic, travel behavior and transportation systems. The socio-economic data base consisted of variables for population, retail employment, non-retail employment and income strata. These parameters were estimated by CRAG for two time periods, 1976 and 1990. The Base year population (1,090,700) income and employment were estimated using CRAG data. The transportation system data base consisted of highway and transit system network information. Both the 1976 and 1990 highway networks were coded and processed by ODOT staff. The configuration of the 1990 highway network was assumed to remain the same for all future year transit alternative networks.

The technical process involved compressing the ODOT interzonal travel times (skim trees) from a 738-zone system to a 194-zone system for input to the modal split model. Three basic input parameters were determined for assessing alternative transit networks: headways, vehicle speed/travel times and link distances. For the base year network, headways were interpreted from existing schedules. Headways for the future year networks were initially based on desired level-of-service concepts but later refined on the basis of projected travel demand. Vehicle speeds for the base year transit network were derived from schedules and the 1976 Operations and Scheduling Survey. Zonal accessibility data were measured from aerial surveys, auto travel times and vehicle occupancies. Travel behavior data were determined for transit from driver counts of boarding passengers and the 1976 Operations and Scheduling Survey. The preferred origin-destination study approach was not possible at the time.

At the time the analyses were being performed, the region lacked a calibrated modal split model and the data to develop one. Rather than attempt to modify and validate one of the earlier models, the ODOT staff decided to employ another, "off-the-shelf," modal split model, the UTPS Default Model. The model was adopted because of its ability to simultaneously perform trip distribution and modal split calculations and for its better replication of human decisionmaking than conventional sequential travel demand forecasting processes. The model was validated using a modal split developed for another urban region (see Travel Demand Forecasting Process figure). Applied using Portland specific data for the base year (1976) and model "estimates of transit trips" was checked against observed passenger counts. Discrepancies between observed and estimated data were noted and adjustments to the model were made on a trial and error basis until outputs matched observed data. Model adjustments were accomplished by first modifying input parameters. The 1976 socio-economic and basic network data were held constant as the control data. However, certain policy inputs, such as weighting factors for out-of-vehicle times and penalties for out-of-direction movements, were adjusted to the values given earlier. Also, the exponent weighting factor—theta—was initially adjusted to provide better "tailoring" of the model to Portland conditions.



Appendix C
Chronology of Project Alternatives

A 1990 Public Transportation Master Plan, 1973: Reserved lanes for express buses on surface streets.

B Governor's Task Force, January 1975

Express Bus Service: Two-lane busway from CBD to I-205, north/south on I-205, east on I-84 to Troutdale or on major arterials to Gresham.

- Option A: East from I-205 on one/two-lane busway along south side of Burnside to Gresham.
- Option B: East from I-205 on one/two-lane busway in median of Burnside to Gresham.

LRT: Two tracks from CBD to I-205, one track from I-205 to Gresham to Troutdale.

- Option A: One or two tracks south along I-205 to Burnside, one or two tracks east along south side of Burnside to Gresham.
- Option B: One or two tracks south along I-205 to Burnside, one or two tracks in median of Burnside to Gresham.

C Interim Transportation Plan, June 1975

- Option A: Two grade-separated exclusive lanes for buses and HOV from I-5 to I-205.
- Option B: One-lane separate reversible busway next to Banfield from I-5 to I-205.
- Option C: One- or two-lane busway in median of rebuilt Banfield from I-5 to I-205.
- Option D: Any of the above, plus redesign of Banfield to six lanes east of 39th Avenue to I-205.
- Option E: LRT two tracks along Banfield from I-5 to I-205, south along I-205 to Burnside or Division, east to Gresham via one of these streets.
- Option F: Alternate use of conventional diesel buses, minibuses, transbuses or a combination of these three.

D CRAG, based on input from its Interagency Coordinating Committee and Technical Advisory Committee, November 1975.

Diesel Buses

- Option A: Separated two-lane busway with stations.
- Option B: Separated two-lane/two-way busway with terminal stations only.
- Option C: Separated one-lane busway with stations.
- Option D: Separated one-lane reversible busway with terminal stations only.
- Option E: Counterflow freeway lanes for buses, no stations.
- Option F: Reversible (moveable) two freeway lanes.
- Option G: Low capital improvement, improve city streets.
- Option H: One lane reserved for buses.

HOV Lanes

- Option A: Separated two-lane/two-way HOV lane with stations.
- Option B: Separated two-lane/two-way HOV lane with terminal stations only.
- Option C: Separated one-lane reversible HOV lane with terminal station only.
- Option D: Reversible (moveable) two freeway lanes for HOV.
- Option E: Two preferential freeway lanes for HOV.
- Option F: Separated two-lane reversible HOV lane with stations.

LRT

- Option A: Separated two tracks with stations.
- Option B: Separated one track with terminal stations only.

Trolleybus

- Option A: Separated two-lane/two-way busway with stations.
- Option B: Separated two-lane/two-way busway with terminal stations only.
- Option C: Separated one-lane reversible busway with stations.
- Option D: Separated one-lane reversible busway with terminal stations only.
- Option E: One freeway lane reversed busway.
- Option F: Busway separated two-lane/two-way.

E CRAG after urging from FHWA, 1975

- Option A: HOV separated two-lane/two-way freeway median.
- Option B: HOV two preferential freeway lanes.
- Option C: LRT separated two tracks.
- Option D: No Build.
- Option E: Do Nothing.

F CRAG reevaluation after passage of Federal Aid Highway Act of 1976, June 1976

- Option A: Low-cost improvement (transit-oriented), (Transportation System Management).

Option B: Existing HOV lanes extended through Lloyd Center to CBD and to I-205.

Option C: HOV preferential lanes, HOV two preferential lanes, plus six auto lanes with shoulders.

Option D: Busway-separated, two-lane/two-way including six lane freeway from I-5 to I-205.

G CRAG Citizens Advisory Committee, October 1976

Option A: Busway-separated, two-lane/two-way including six lane freeway from I-5 to I-205.

Option B: Additional TSM alternative to improve Banfield to a minimum six lane freeway from I-5 to I-205.

H CRAG based on Tri-Met Consultants' report, February 1977

Option A: LRT to Gresham, two tracks to I-205 from CBD, track south on I-205 to Burnside, east on Burnside in median alignment.

Option B: Six lanes on Banfield with turnouts, no shoulders from I-5 to I-205.

I CRAG based on ICC/TAC/CAC input, April 1977

Option A: Six standard freeway lanes, plus shoulders on Banfield.

J FHWA/UMTA request to CRAG, August 1977

Option A: Separated median busway, plus six lanes of freeway from I-5 to I-205.

Option B: LRT along Banfield to I-205, south on I-205 to Lents.

Option C: LRT along Banfield to I-205, south on I-205 to Division, east on Division to Gresham.

The final list of alternatives used for the DEIS were as follows:

1 ***No-Build*** (Freeway in pre-1976 condition)

2 ***Low Cost Improvements***

Option A: Improve arterial streets for transit, freeway returned to pre-1976 conditions.

Option B: Construct six lane minimum freeway from I-5 to I-205, plus improvement of arterial streets for transit.

3 ***HOV Lanes***

Option A: HOV lanes center of freeway from CBD to I-205 plus six-lane freeway from I-5 to 37th Avenue, four-lane freeway from 37th to I-205, HOV lanes center of freeway CBD to I-205, plus six-lane freeway with no shoulders from I-5 to I-205.

Option B: HOV lanes center of freeway, CBD to I-205, plus six-lane freeway with shoulders I-5 to I-205.

4 ***Separated Busway***

Option A: Busway separated north side of freeway, plus six-lane freeway with shoulders from I-5 to I-205.

Option B: Busway separated median of freeway, plus six-lane freeway with shoulders from I-5 to I-205.

5 ***LRT***

Option A: LRT two tracks CBD to I-205, two tracks south along I-205 to Burnside, east on Burnside median to Gresham, including six lane freeway from I-5 to I-205.

Option B: Same as above with addition of standard lane widths and shoulders along freeway from I-5 to I-205.

Option C: LRT two tracks CBD to I-205, two tracks south along I-205 to Division, east on Division median to Gresham including six lane freeway minimum width from I-5 to I-205.

Option D: Same as above with addition of standard lane widths and shoulders from I-5 to I-205.

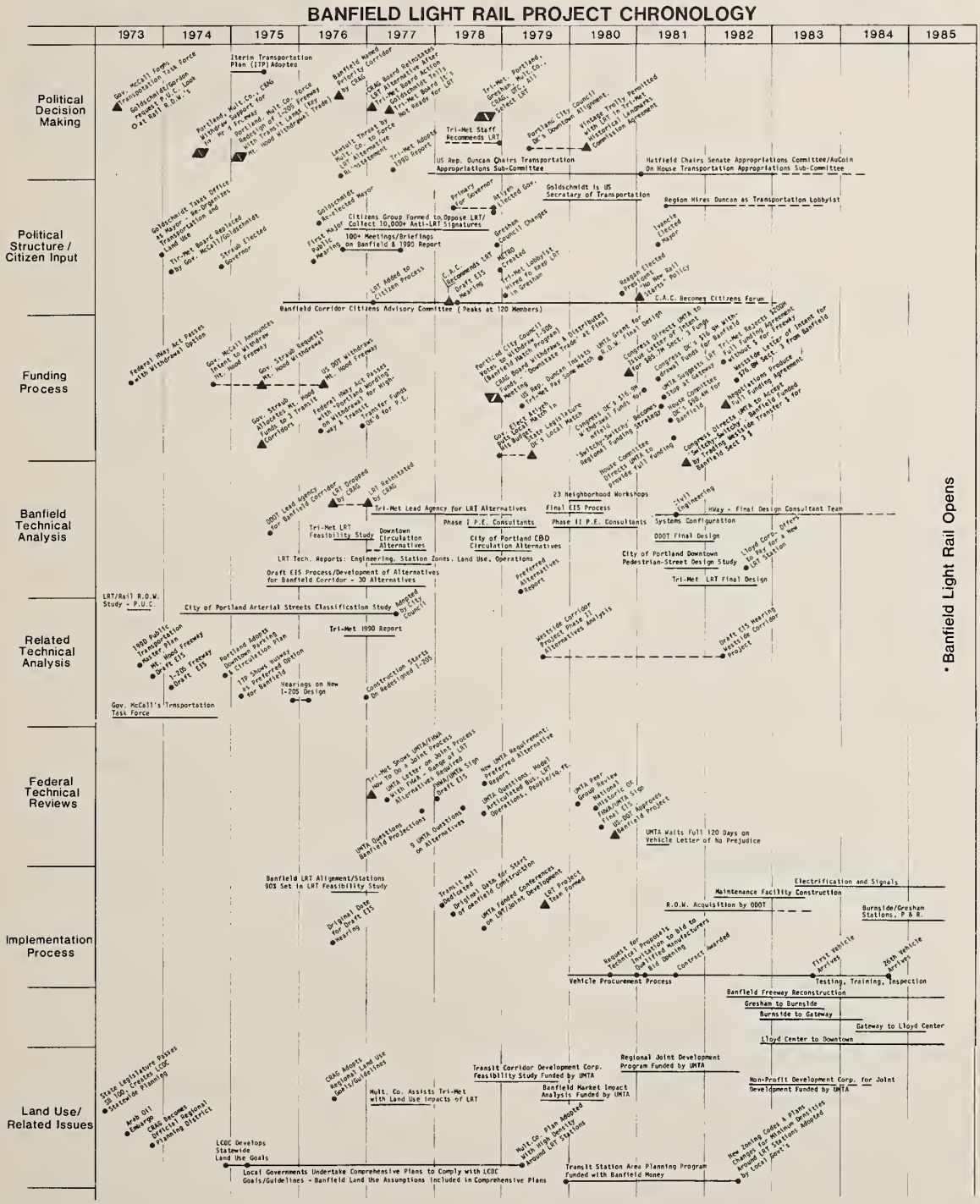
Option E: LRT two tracks CBD to I-205, two tracks south along I-205 to Foster Road including six-lane minimum-width freeway from I-5 to I-205.

Option F: Same as above with addition of standard lane widths and shoulders along freeway from I-5 to I-205.

Appendix D
Interviews

	Banfield Project Affiliation
Paul Bay	Executive Director, Planning & Development, Tri-Met
Leonard Bergstein	Office of the U.S. Secretary of Transportation; Assistant to the Mayor of Portland; Assistant to the Governor of Oregon
Robert Bothman	Metropolitan Engineer, Oregon Department of Transportation
Peter Cass	Former General Manager, Tri-Met
Andrew Cotugno	Director of Transportation, Metropolitan Service District
Gerard Drummond	President, Board of Directors, Tri-Met
Don Emerson	Washington Office, UMTA
Richard Feeney	Executive Director, Public Affairs & Marketing, Tri-Met
Mel Gordon	Commissioner, Multnomah County
Charles Graves	Director, Office of Planning Assistance, UMTA
Richard Gustafson	Executive Officer, Metropolitan Service District; Senior Planner, Tri-Met
William Hall	Planning Director, Tri-Met
Ron Higbee	LRT Project Director, Tri-Met
Susan Long	Appropriations Committee Staff to Senator Hatfield
Don MacDonald	LRT Project Director, Tri-Met
Steve McCarthy	Acting General Manager, Tri-Met
Ernie Munch	Chief Transportation Planner, City of Portland
Ray Polani	Citizens for Better Transit
John R. Post	Executive Director, Planning & Development, Tri-Met
Bebe Rucker	Senior Transportation Planner, Multnomah County
Miriam Selby	Director, Administrative Services, Banfield Project, Tri-Met
Theodore Spence	Plan & Program Manager, Metropolitan Region, Oregon Department of Transportation
Ray Weil	Washington Office, US DOT
Phil Whitmore	Joint Development Director, Metropolitan Service District
Doug Wright	Deputy Secretary of Transportation; City Planning Director, Portland

Appendix E
Banfield Light Rail Project Chronology



SOURCE: *Tri-Met*

Appendix F
Summary of Local and Federal Actions Affecting Funds Allocated to the Banfield Transitway Project

Action Taken

I. Mt. Hood withdrawal—CRAG allocation of $69,875,000 in 1976 $—Resolution BD 761104 in November 1976.

Local Allocation:	
(e)(4)	$69,875,000
Match	12,330,882
	$82,205,882

II. I-505 withdrawal—CRAG allocation of $15,000,000 in 1978 $—Resolution BD 781213.

Local Allocation:	
(e)(4)	$15,000,000
Match	2,647,059
	$17,647,059

III. Various adjustments prior to negotiation of Letter of Intent.

A. Escalation of base allocation to 12/31/79 $ plus allocation of $1,403,560 of Banfield funds to TSAP by Metro Resolution 80-137 in March 1980.

Local Allocation:	
(e)(4)	$127,559,574
Match	22,510,513
	$150,070,087

B. De-escalation to 03/31/80 $ and transfer of $2,374,809 into Banfield from Highway 212 by Metro Resolution 80-184 in September 1980.

Local Allocation:	
(e)(4)	$124,497,737
Match	21,970,189
	$146,467,926

IV. Negotiations with UMTA for Section 3 Letter of Intent—1980.

A. ***Funding/Cost Basis for $85.7 million Letter of Intent:***

		Assumed 1980 Cost & Funding	"Assumed" Escalation @12%		Proposed Funding
Highway Funds:					
(e)(4)-Highway	(e)(4)	$ 66.8m	$16.5m	(e)(4)	$ 83.3m
Transit Funds:	$127m			$169.3m	
(e)(4)-Transit		60.2	25.8		86.0
Section 3		60.9	24.8		85.7
Total		$187.9m	$67.1m		$255.0m
Total w/Match		$225.5m			$306.3m

Key points to initial funding program:

- Initial federal commitment was to a $306.3 million project, including inflation.
- $127 million (e)(4) was "assumed" to escalate from 1980 through 1985 by $42.3 million to $169.3 million; this never happened—in fact, de-escalation resulted in a loss of funds.
- Section 3 commitment of $85.7 million included firm commitment of $24.8 million escalation.

B. Letter of Intent for $85.7 million Section 3 funds issued in December 1980; (e)(4) had escalated by $4.4 million.

Local Allocation:	
(e)(4)	$128,958,496
Match	22,757,382
Section 3	85,700,000
Match	21,425,000
	$258,840,878

V. No New Rail Starts (with Section 3) policy instituted in 1981; negotiations with UMTA/Congress to develop alternate funding program; actions finalized by FY 1981 Appropriations Bill.

A. A portion of the (e)(4) funded highway project was redefined by Congress as a transit project (on the basis that a portion of the highway relocation was due to LRT construction adjacent to the freeway) to be funded with (e)(4) transit; no change in total project cost or scope or share of project to be (e)(4) funded; resulted

in more of the project being folded into the Full-Funding Contract; had the effect of more "assumed" (e)(4) escalation being built into the Full-Funding Contract.

	Revised 1980 Cost & Funding	"Assumed" Escalation @12%	Revised Funding Program
Highway Funds:			
(e)(4)-Highway	$ 27,000,000	$ 1,500,000	$ 28,500,000
Transit Funds:			
(e)(4)-Highway	39,800,000	15,000,000	54,800,000
(e)(4)-Transit	60,200,000	25,800,000	86,000,000
Section 3	60,900,000	24,800,000	85,700,000
Total	$187,900,000	$67,100,000	$255,000,000
Total w/match	$225,500,000		$306,300,000

B. The Banfield Section 3 Letter of Intent was "Traded" for (e)(4) that was allocated to other bus projects in the Portland region, particularly Westside Corridor.

- $8.9 million of original $85.7 million appropriated to Banfield in 1981—$76.8 million balance involved in trade through a re-issued Letter of Intent.
- Metro Resolution 82-323 accomplished trade (in June 1981 $) adopted in April 1982; *Base Value of Section 3 funds only* involved in trade, not Inflation Reserve.
- Inflation Reserve of $25 million set aside to allow traded bus projects to escalate as if they were (e)(4) with the balance unallocated.

Section 3/(e)(4) Trade of Local Allocation

	(e)(4) Updated to 06/30/81	Change Due to "Trade"	Initial Section 3	Change Due to "Trade"
Banfield	$123,569,278	+$55,056,363	85.7m	−76.8
Other Bus	71,997,577	− 55,056,363	0	+51.82
Inflation Reserve	0	0	0	+24.98

C. Due to one-year delay in negotiating Full-Funding Contract, UMTA increased overall funding commitment by $4.8 million to account for inflation that had occurred; additional amount in Full-Funding Contract did *not* increase locally allocated funds—simply included higher level of "assumed" inflation.

Funding program as a result of A, B and C above.

Local Allocation (in 06/30/81 $):	
Highway (e)(4)	$ 26,578,500
Transit (e)(4)	152,047,140
Section 3	8,900,000
Total	$187,525,640
Total w/Match	$221,272,813
Federal Funding Commitment:	
Highway (e)(4)	$ 28,500,000
Transit (e)(4)	230,654,079
Section 3	8,900,000
Total	$268,054,079
Total w/Match	$316,012,152

Note that the original December 1980 (e)(4) level of $128.9 million de-escalated to $123.6 million by June 1981 widening the difference between local (e)(4) authority and federal (e)(4) commitment to $80.5 million.

VI. FY 1982 Actions.

A. Due to the realization locally that "assumed" escalation would not occur and "firm" escalation that in part belonged to the Banfield was in the $76.8 million Letter of Intent—authorization was obtained from Congress to use a portion of the Inflation Reserve in completion of the Banfield rather than "non-rail" purposes. The Inflation Reserve was subsequently allocated in part to the Banfield and in part to the other "non-rail" projects. Allocation to "non-rail" projects was an amount equivalent to what those projects would have received if they were Interstate Transfer (i.e., prior to the (e)(4)/Section 3 Trade) with the "Rollback" to June 1980 adopted in the Surface Transportation Act (STA) of 1982.

The effect of this action was to increase the level of locally authorized funds for the Banfield by $20.15 million (Metro Resolution 83-401); the federal funding commitment as defined in the Full-Funding Contract remained at the same level, simply increasing Section 3 and decreasing Interstate Transfer accordingly.

Local Allocation of $76.8 million Letter of Intent:

	Base Updated to 06/30/82 $	Change	Revised Allocation
Inflation Reserve	$26,886,561	$−26,886,561	$ 0
Banfield	0	+20,150,000	20,150,000
Non-Rail Projects	49,913,439	+6,736,561	56,650,000
	$76,800,000	0	$76,800,000

B. In order to improve the quality of the downtown Portland portion of the LRT project plus allow inclusion of a vintage trolley element of the project, Congress provided an additional $5 million of Section 3 funds to increase the project scope.

This plus the local match (for a total of $6.25 million) was added to the Full-Funding Contract.

C. One year of Metro Corridor studies was funded as an element of the Banfield funding; $300,000 of additional local authority was added to the project with no additional federal funding commitment.

Funding program as a result of A and B above:

Local Allocation (06/30/82 $):	
Highway (e)(4)	$ 26,584,501
Transit (e)(4)	146,870,375
Section 3	
Original	8,900,000
Inflation Reserve	20,150,000
CBD	5,000,000
Total	$207,504,876
Total w/Match	$246,627,060

Federal Funding Commitment:	
Highway (e)(4)	$ 28,500,000
Transit (e)(4)	209,244,704
Section 3	
Original	8,900,000
Inflation Reserve	20,150,000
CBD	5,000,000
Total	$271,794,704
Total w/Match	$322,262,152

Note that addition of Inflation Reserve narrowed the difference between local (e)(4) authority and federal (e)(4) commitment by $21.4 million, but that local (e)(4) authority de-escalated from $178.6 million to 173.5 million, widening the difference by $5.1 million, resulting in a net reduction of the difference from $80.5 million to $64.3 million.

VII. 1983 Actions

With adoption of the STA of 1982, the provision for escalation of Interstate Transfer funds was eliminated. This froze the (e)(4) authorization at the June 1982 level with no hope for realizing the "assumed" escalation built into the federal funding commitment. As such, Congress committed "New Start" Section 3 funds to the project holding the total transit funding commitment constant, reducing the federal (e)(4) funding commitment to the level authorized locally (in June 1982 $) and providing the difference in Section 3 funds. With this change, the local and federal funding commitments are the same with no "assumed" escalation built into any figures.

Local Allocation and Federal Funding Commitment:	
Highway (e)(4)	$ 26,584,501
Transit (e)(4)	146,870,375
Section 3	
Original	8,900,000
Inflation Reserve	20,150,000
CBD	5,000,000
New Start	58,705,251
Total	$266,210,127
Total w/Match	$320,008,624

VIII. Anticipated 1984 Actions

Because of high demands for Section 3 funds nationwide, it is apparent that the full $58.7 million of funds from the "New Start" category will not be available. As such, Section 9 funds allocated to Tri-Met will be used to provide sufficient funds for a $307.7 million project.

Local Allocation and Federal Funding Commitment:	
Highway (e)(4)	$ 26,584,501
Transit (e)(4)	$146,870,375
Section 3	
Original	8,900,000
Inflation Reserve	20,150,000
CBD	5,000,000
New Start	42,698,353
Section 9	6,160,000
Total	$256,363,229
Total w/Match	$307,700,000

Unused portion of Full-Funding Contract (New Start Section 3 + Match) = $20,008,624.

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